GoldStar

Service Manual

CS-7800R

COMPONENT SYSTEM

CS-7800R

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SV2-086B

CONTENTS

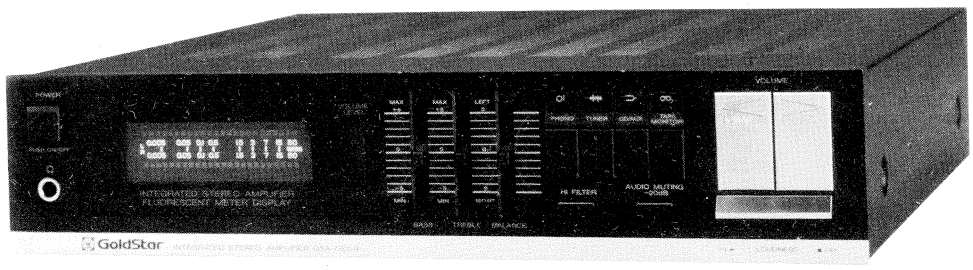
GSA-7800R 3
GST-7800R 13
GSK-7800R 26
GSY-7800R 44
GSV-7800R 51

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforeded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteritics are identified in this manual, electrical components having such features are identified by a ⚠ in the schematicdiagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitude replacement parts which do not have the same safety characteristics as specified in the parts list may create shcok, fire or other hazards.

STEREO AMPLIFIER

MODEL GSA-7800R



1. SPECIFICATIONS 4
2. ALIGNMENT INSTRUCTIONS 4
3. BLOCK DIAGRAM 5
4. P.C. BOARD ASSEMBLY (COMPONENT SIDE) 6
5. EXPLODED VIEW 8
6. ELECTRICAL PARTS LIST 9
7. MECHANICAL PARTS LIST 11
8. SCHEMATIC DIAGRAM 12

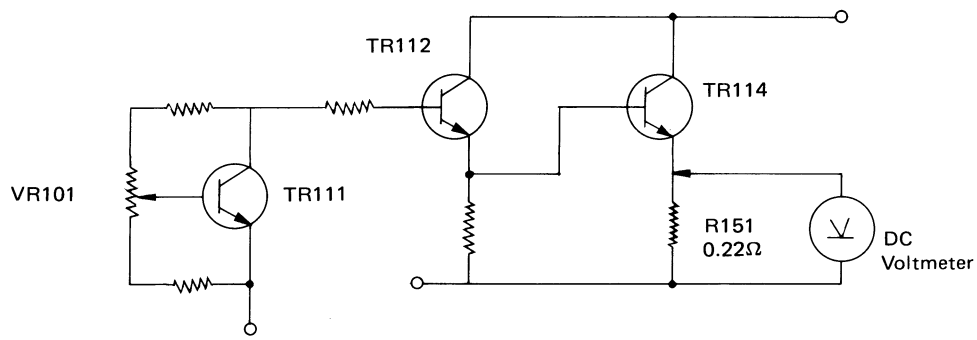
SPECIFICATIONS

1. Output . . . . . 34W + 34W
2. T.H.D. 0.04%
3. Frequency response . . . . . 10 ~ 40,000Hz
4. S/N ratio . . . . . Aux: 90dB, Phono: 65dB
5. Cross talk 55dB
6. Bass (100Hz) . . . . . ±10dB
7. Treble (10kHz) . . . . . ±10dB
8. Loudness 10Hz: 8dB, 10kHz: 4.5dB
9. High filter (10kHz) . . . . . −10dB
10. Input sensitivity . . . . . Phono: 2.5mV, Tape: 150mV, Aux: 150mV
11. Input impedance . . . . . Phono: 50kΩ, Tape: 50kΩ, Aux: 50kΩ
12. Semiconductors . . . . . 10 IC, 6 FET, 38 TR, 8 LED, 17 DIODE

ALIGNMENT INSTRUCTIONS

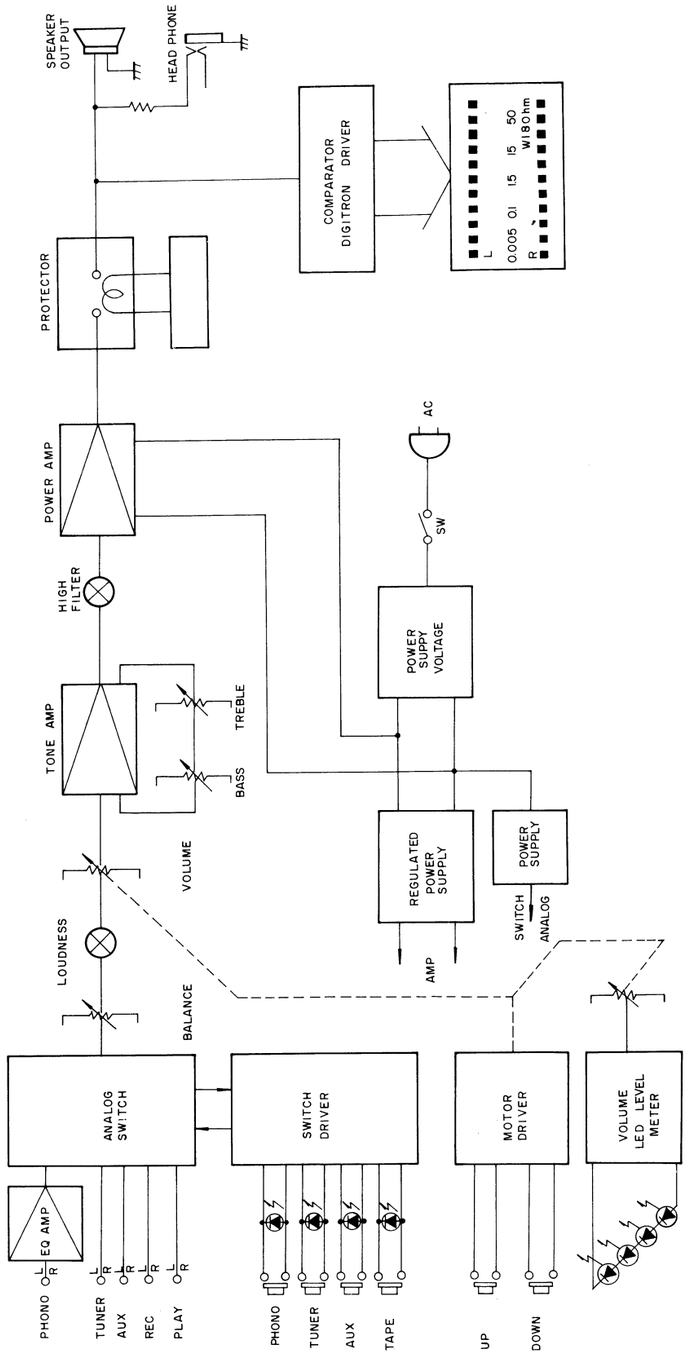
Idling Current Adjustment

(L. CH)



Input	Adjust for	Adjustment	Remarks
No Signal	DC 4.4mV	L: VR101 R. VR102	Load: 8Ω

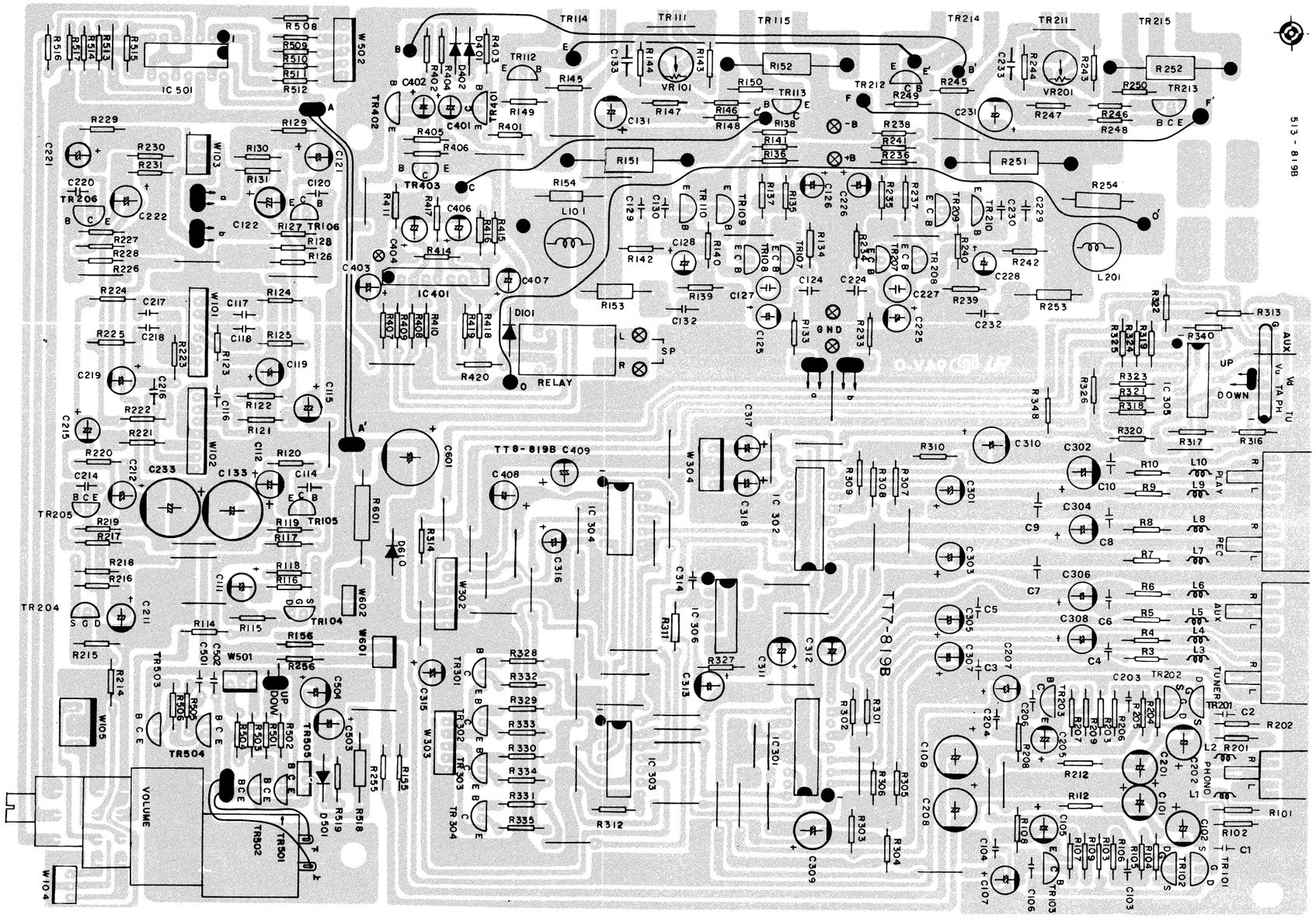
BLOCK DIAGRAM



NOTES

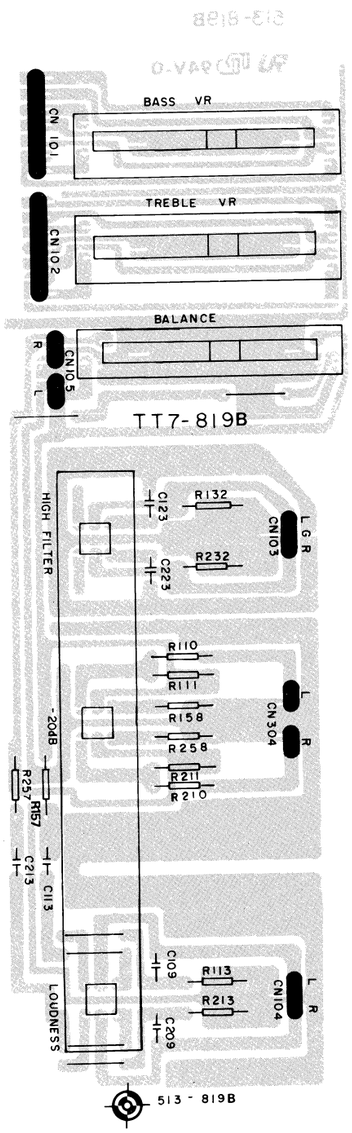
P.C. BOARD ASSEMBLY (COMPONENT SIDE)

MAIN P.C. BOARD

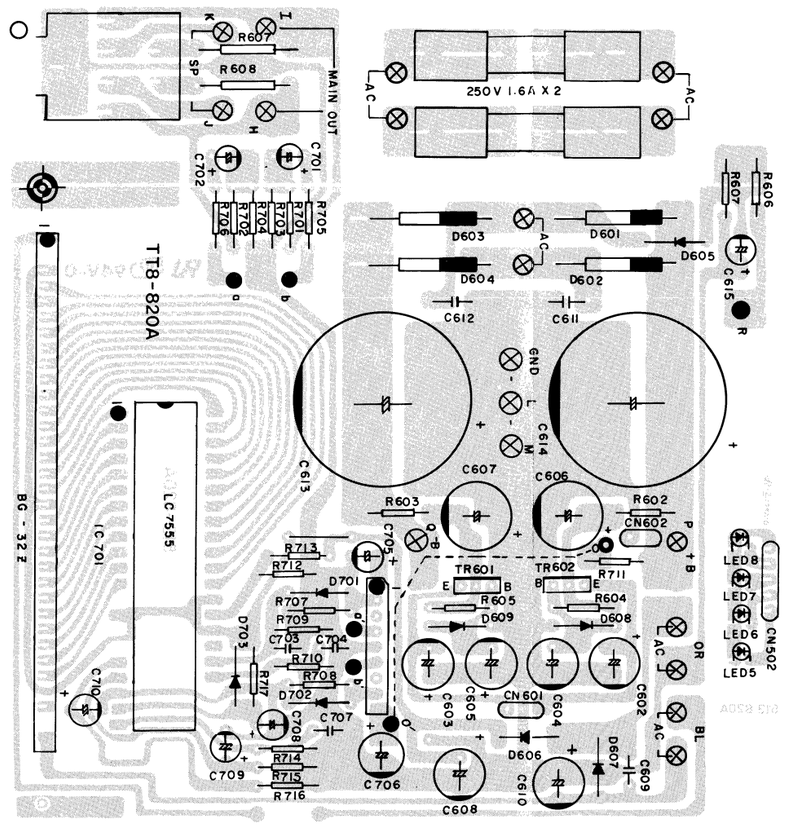


P.C. BOARD ASSEMBLY (COMPONENT SIDE)

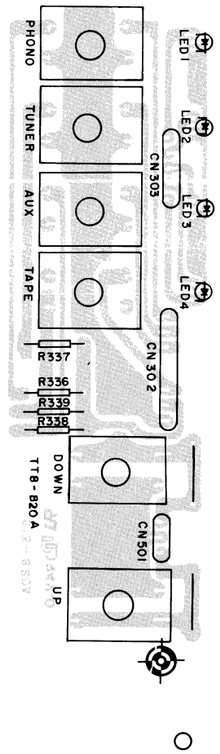
VOLUME P.C. BOARD



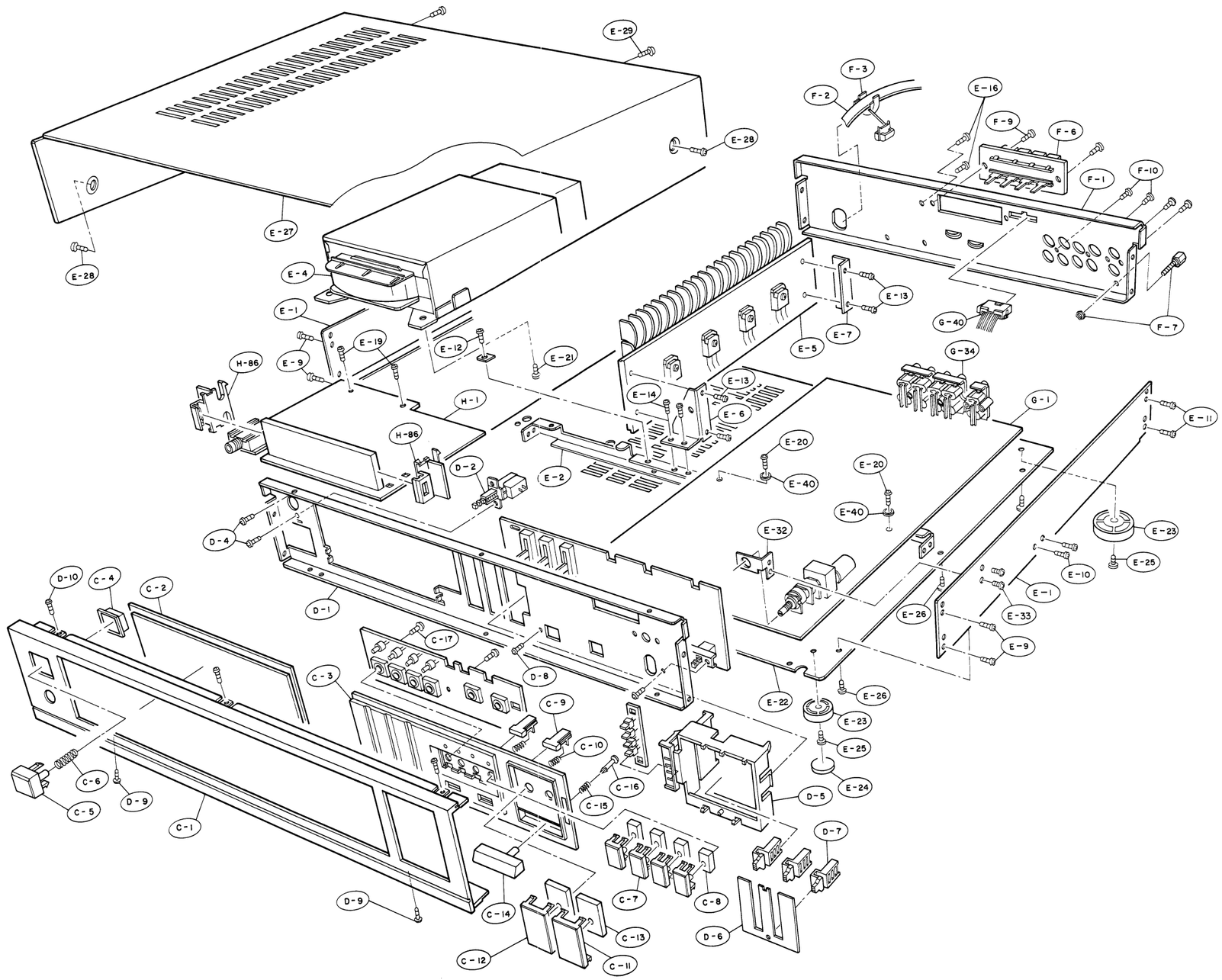
POWER AMP P.C. BOARD



SWITCH P.C. BOARD



EXPLODED VIEW



ELECTRICAL PARTS LIST

CAUTION: A ⚠ in the schematic diagram and the parts list designates components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 2 in this manual. Do not degrade the safety of the receiver through improper servicing.

Ref. No.	Description	Mfr's Part No.
INTEGRATED CIRCUITS		
IC301	LM1037-Analog SW	668-204A
IC302	LM1037-Analog SW	668-204A
IC303	MC14071BCP-Or Gate	668-058A
IC304	MC14011BCP-Nand Gate	668-046A
IC305	LM339N-Comparator	668-045A
IC306	MC14013BCP-D Flip Flop	668-057A
IC401	TA7317P-Relay Drive	668-050A
IC501	LM339N-Comparator	668-045A
IC701	LC7555-Meter Driver	668-088A
IC702	TA7318P-8 Digit Driver	668-101A
FETS & TRANSISTORS		
TR101	FET, KTK30 AY	667-010C
TR102	FET, KTK30 AY	667-010C
TR103	TR, KTA970-GR	665-818A
TR104	FET, KTK30AY	667-010C
TR105	TR, KTA970-GR	665-818A
TR106	TR, KTA970-GR	665-818A
TR107	TR, KTC2240-GR	665-817A
TR108	TR, KTC2240-GR	665-817A
TR109	TR, KTA970-GR	665-818A
TR110	TR, KTA970-GR	665-818A
TR111	TR, KTA1015-Y	665-813B
TR112	TR, KTC1627A-Y	665-832B
TR113	TR, KTA817A-Y	665-833B
TR114	TR, 2SD895D	665-500A
TR115	TR, 2SB775D	665-501A
TR201	FET, KTK30AY	667-010C
TR202	FET, KTK30AY	667-010C
TR203	TR, KTA970-GR	665-818A
TR204	FET, KTK30AY	667-010C
TR205	TR, KTA970-GR	665-818A
TR206	TR, KTA970-GR	665-818A
TR207	TR, KTC2240-GR	665-817A
TR208	TR, KTC2240-GR	665-817A
TR209	TR, KTA970-GR	665-818A
TR210	TR, KTA970-GR	665-818A
TR211	TR, KTA1015-Y	665-813B
TR212	TR, KTC1627A-Y	665-832B
TR213	TR, KTA817A-Y	665-833B
TR214	TR, 2SD895D	665-500A
TR215	TR, 2SB775D	665-501A
TR301	TR, KTC1815-GR	665-812C
TR302	TR, KTC1815-GR	665-812C
TR303	TR, KTC1815-GR	665-812C
TR304	TR, KTC1815-GR	665-812C
TR401	TR, KTC1815-Y	665-812B
TR402	TR, KTC1815-Y	665-812B
TR403	TR, KTA1015-Y	665-813B
TR501	TR, KTA950-Y	665-831B
TR502	TR, KTA950-Y	665-831B
TR503	TR, KTC2120-Y	665-830B
TR504	TR, KTC2120-Y	665-830B
TR505	TR, 2SC1173-O	665-414B
TR601	TR, KTB834-O	664-602A
TR602	TR, KTD880-O	664-601A
DIODES		
D101	1N4001	652-005A
D401	KDS 1555	652-015B
D402	KDS 1555	652-015B
D501	ZPD-5.1	654-608C
D601	P300D	652-010C
D602	P300D	652-010C
D603	P300D	652-010C
D604	P300D	652-010C
D605	1N4001	652-005A
D606	1N4001	652-005A
D607	1N4001	652-005A
D608	ZPD-24	654-607E
D609	ZPD-24	654-607E
D610	ZPD-15	654-607C
D701	1K60	651-001C
D702	1K60	651-001C
D703	KDS1555	652-015B
LED1	LED, SLC-26UR, RD	653-617A
LED2	LED, SLC-26UR, RD	653-617A
LED3	LED, SLC-26UR, RD	653-617A
LED4	LED, SLC-26UR, RD	653-617A
LED5	LED, SLB-15UR5, RD	663-621A
LED6	LED, SLB-15UR5, RD	663-621A
LED7	LED, SLB-15UR5, RD	663-621A
LED8	LED, SLB-15UR5, RD	663-621A
COILS		
L1	Inductor Fixed 2 Core 47μH	637-604A
L2	Inductor Fixed 2 Core 47μH	637-604A
L3	Inductor Fixed 2 Core 47μH	637-604A
L4	Inductor Fixed 2 Core 47μH	637-604A

Ref. No.	Description	Mfr's Part No.
L5	Inductor Fixed 2 Core 47μH	637-604A
L6	Inductor Fixed 2 Core 47μH	637-604A
L9	Inductor Fixed 2 Core 47μH	637-604A
L10	Inductor Fixed 2 Core 47μH	637-604A
L101	Coil, Choke with Core	636-403A
L201	Coil, Choke with Core	636-403A
MISCELLANEOUS		
VR101	VR, 470-B	613-002I
VR201	VR, 470-B	613-002I
Volume	VR, 100KB	611-646B
Bass/Trable	VR, S3028-100KB	612-610A
Balance	VR, S3018-100KW	612-610B
	SW, Push SVZ32-N AH-20dB/Loudness/Filter	554-622A
	SW, KHC10902 Phone/Tuner/Aux/Tape Monitor/VR-up/Down	558-013A
	Jack, Headphone	572-159D

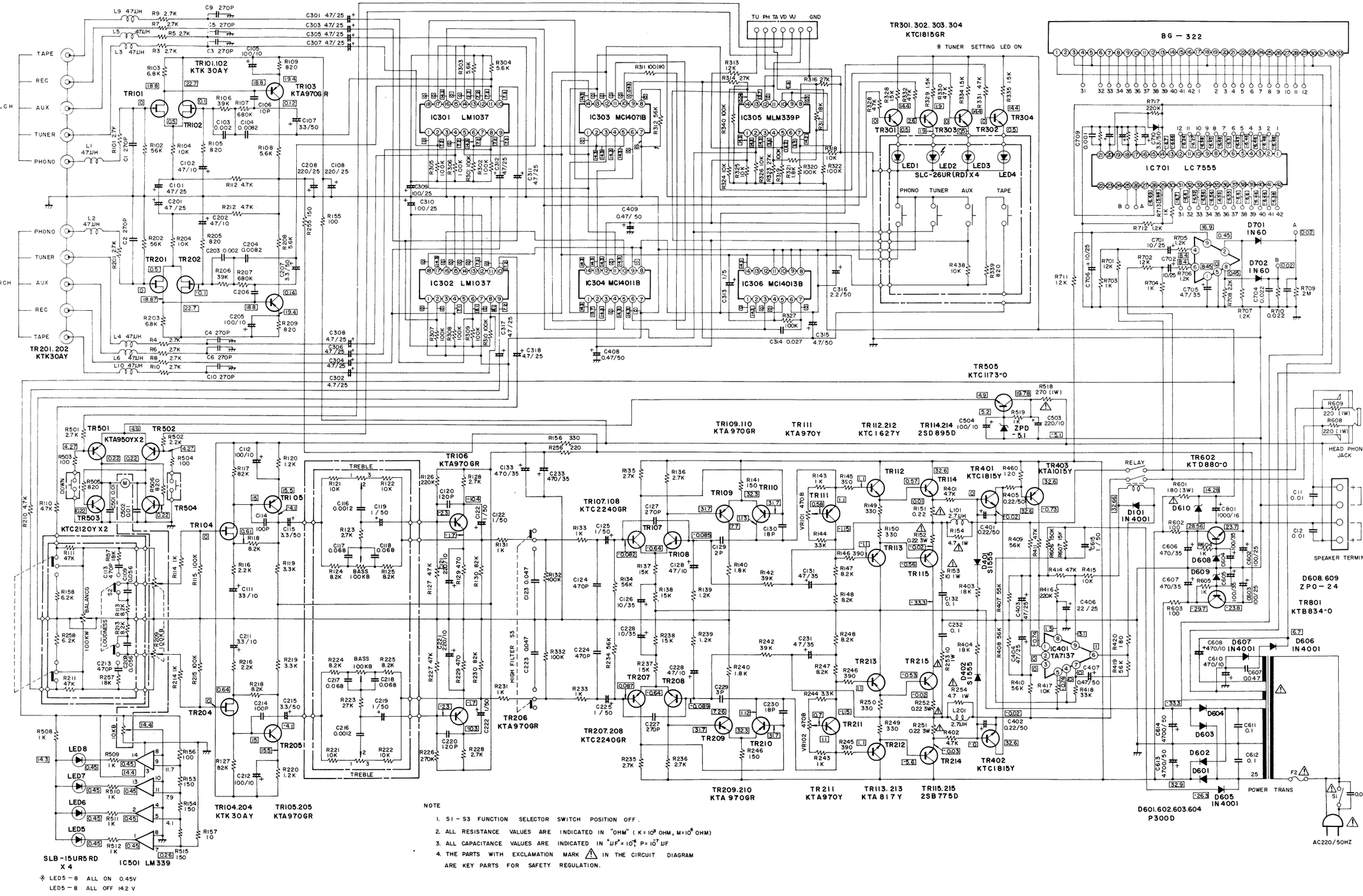
Ref. No.	Description	Mfr's Part No.
F2 ⚠	Fuse, 250V 1.6A	585-112B
R151 ⚠	R, Wire Wound 0.22-3W	614-005T
R152 ⚠	R, Wire Wound 0.22-3W	614-005T
R153 ⚠	R, Metal Oxide 10-1W	RS100J05
R154 ⚠	R, Metal Film 4.7-1W	RN4R7J21
R251 ⚠	R, Wire Wound 0.22-3W	614-005T
R252 ⚠	R, Wire Wound 0.22-3W	614-005T
R253 ⚠	R, Metal Oxide 10-1W	RS100J06
R254 ⚠	R, Metal Film 4.7W-1W	RN4R7J21
R518 ⚠	R, Metal Oxide 270-1W	RS271K05
R601 ⚠	R, Wire Wound 180-3W	RW181K06
	Digitron BG-32ZS	659-002B

MECHANICAL PARTS LIST

Ref. No.	Description	Mfr's Part No.	Ref. No.	Description	Mfr's Part No.
C-1	Panel, Front	258-701C	E-24	Felt	472-610B
C-2	Window, Digitron	236-683A	E-25	Screw, TRQ2+3x8A	TRQ1836J
C-3	Escutcheon, Front	245-703A	E-26	Screw, TRQ2+3x8A	TRQ1836J
C-4	Guide, Power Knob	384-701A	E-27	Cabinet	213-701D
C-5	Knob, Power	273-716A	E-28	Screw, Special	353-072O
C-6	Spring, Knob	442-634R	E-29	Screw, TRQ2+3x8A	TRQ1836I
C-7	Knob, Function	273-723A	E-30	Cushion	447-907B
C-8	Cushion	447-701C	E-31	Cushion	447-907A
C-9	Knob, Push	273-381A	E-32	Bracket, Volume	321-970A
C-10	Spring, Coil	442-634D	E-33	Screw, TBQ+3x8 FZMY	TBQ1836J
C-11	Knob, Up	273-717A	E-40	Washer, Nonmetal	354-602D
C-12	Knob, Down	273-717B	F-1	Chassis, Back	313-703B
C-13	Cushion	447-701A	F-2	Cord, Power	681-003D
C-14	Knob, Push	273-718A	F-3	Holder, Cord Heyco	324-348A
C-15	Spring, Knob	442-634G	F-6	Terminal, Speaker	561-013A
C-16	Holder, Push Knob	324-426A	F-7	Terminal, Ground	563-606A
C-17	Screw, TRQ2x6 FZMY	TRQ0930J	F-9	Screw, TRQ2+3x8A FBK	TRQ1836I
D-1	Chassis, Front	313-704B	F-10	Screw TRQ2+3x10A FBK	TRQ1839I
D-2	SW, Power	554-612B	G-1	PWB, Pre Main Amp	513-819B
D-4	Screw	MRC1830J	G-34	Jack, Block S-437P	576-002A
D-5	Bracket, Deco Plate	321-928A	G-40	Connector, Assy	563-649D
D-6	Plate, Deco Slide	251-702A	H-1	PWB, Power Amp	513-820A
D-7	Knob Assy, Slide	273-731A	H-86	Holder, Digitron	324-701A
D-7-1	Knob, Slide	273-724A			
D-7-2	Base, Slide Knob	225-701A			
D-8	Screw	MRC1830J			
D-9	Screw, Tapping 3x8	TCQ1836J			
D-10	Screw, Tapping 3x8	TCQ1836J			
D-11	Supporter, PWB	322-701A			
D-12	Screw,	MRC1830J			
E-1	Frame, Side L/R	315-701A			
E-2	Frame, Cross	315-702A			
E-4	Trans, Power 220V	641-695C			
E-5	Heat Sink	255-701A			
E-6	Bracket, Heat Sink Front	321-931A			
E-7	Bracket, Heat Sink	321-930A			
E-8	Bracket, Terminal	321-929A			
E-9	Screw, TBQ+3x8 FZMY	TBQ1836J			
E-10	Screw, TBQ+3x8 FZMY	TBQ1836J			
E-11	PScrew, TBQ+3x8 FZMY	TBQ1836J			
E-12	Screw, TRQ2+3x8A	TRQ1836J			
E-13	Screw, TRQ2+3x8A	TRQ1836J			
E-14	Screw, TRQ2+3x8A	TRQ1836J			
E-16	Screw, TRQ2+3x8A FBK	TRQ1836I			
E-17	Coil, Screw, TRA2+3x12A	TRQ1841J			
E-18	Screw, TRQ2+3x8A	TRQ1836J			
E-19	Screw, TRQ2+3x8A	TRQ1836J			
E-20	Screw, TRR3+3x8A	TRR1836J			
E-21	Screw, Tapping	TRQ2236J			
E-22	Plate, Bottom	256-701B			
E-23	Foot	265-024A			

NOTES

SCHEMATIC DIAGRAM



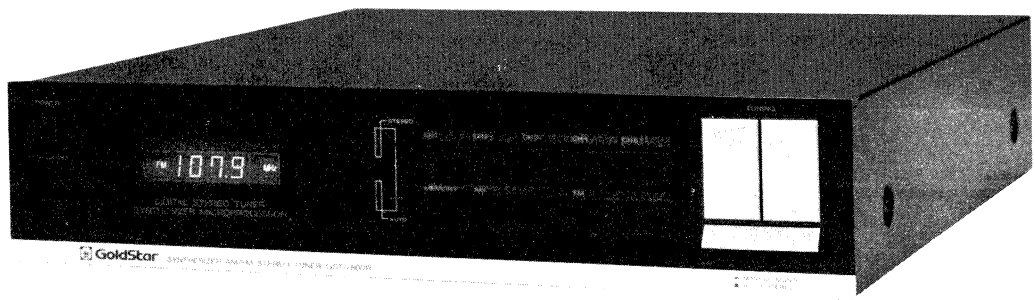
NOTE

1. S1 – S3 FUNCTION SELECTOR SWITCH POSITION OFF.
2. ALL RESISTANCE VALUES ARE INDICATED IN "OHM" (K = 10^3 OHM, M = 10^6 OHM)
3. ALL CAPACITANCE VALUES ARE INDICATED IN "μF" = 10^{-6}, P = 10^{-12} μF
4. THE PARTS WITH EXCLAMATION MARK ⚠ IN THE CIRCUIT DIAGRAM ARE KEY PARTS FOR SAFETY REGULATION.

* LED5 – 8 ALL ON 0.45V
LED5 – 8 ALL OFF 14.2 V

DIGITAL STEREO TUNER

MODEL GST-7800R



1. SPECIFICATIONS 14
2. ALIGNMENT INSTRUCTIONS 15
3. BLOCK DIAGRAM 19
4. P.C. BOARD ASSEMBLY (COMPONENT SIDE) 19
5. EXPLODED VIEW 21
6. ELECTRICAL PARTS LIST 22
7. MECHANICAL PARTS LIST 24
8. SCHEMATIC DIAGRAM 25

SPECIFICATIONS

AM PART

1. Frequence range . . . . . 522 ~ 1,611kHz
2. Intemediate frequency 455kHz
3. Usable sensitivity (S/N 20dB) . . . . . Less than 56dB
4. Image rejection ratio . . . . . More than 40dB
5. IF rejection ratio . . . . . More than 60dB
6. Selectivity . . . . . More than 40dB
7. S/N ratio . . . . . More than 35dB
8. T.H.D . . . . . Less than 1.5%
9. Frequence response . . . . . 50 ~ 1,800Hz
10. Search stop level . . . . . 62 ± 6dB
11. Output voltage 300mV

FM PART

1. Frequency range . . . . . 87.5 ~ 108
2. Usable sensitivity . . . . . Less than 5mV
3. S/N ratio . . . . . Mono: More than 70dB, Stereo: More than 65dB
4. Image rejection ratio . . . . . More than 80dB
5. IF rejection ratio . . . . . More than 95dB
6. T.H.D. . . . . Mono: Less than 0.3%, Stereo: Less than 0.5%
7. Frequency response . . . . . 30 ~ 1,400Hz
8. Stereo separation . . . . . More than 35dB
9. Search stop level . . . . . 25 ± 3dB
10. Output voltage 600mV

NOTE: This specifications may be changed for improvement of performance without notice.

ALIGNMENT PROCEDURE

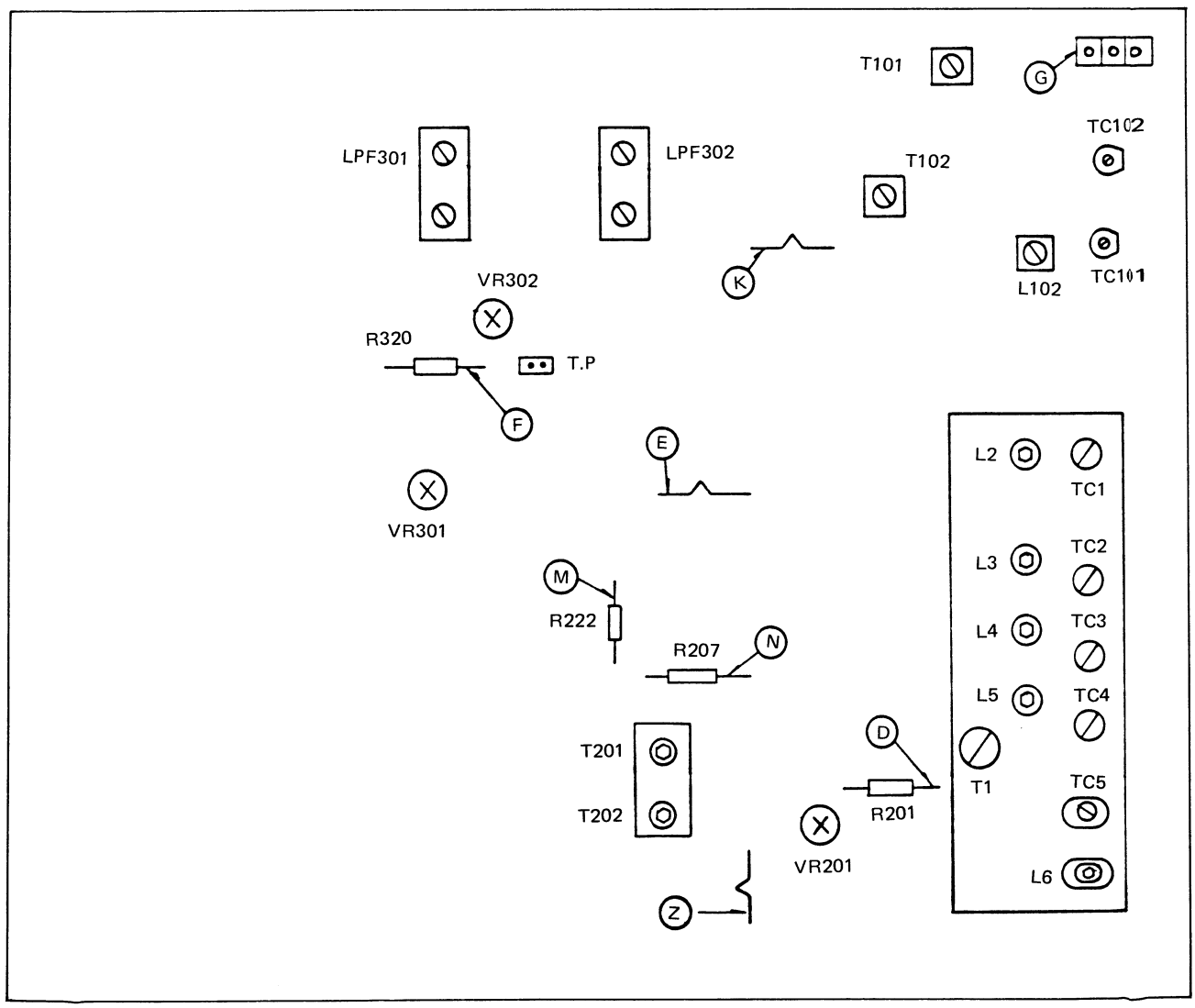
Equipment Needed

Alignment is an exacting procedure and should be undertaken only when necessary. The following equipment is required for alignment work.

1. AM signal generator
2. FM signal generator
3. AM/FM IF genescope
4. Oscilloscope
5. VTVM
6. Test loop antenna (AM adjustment)
7. Dummy antenna (FM adjustment)
8. Stereo signal modulator
9. Frequency counter

NOTE: Standard modulation is 1000Hz at 30% for AM. (1000Hz at 75kHz deviation for FM)

Adjustment Points



FM IF Adjustment

IF Genescope . . . . . The input connects to the test point "Ⓓ" and the output connects to the "Ⓔ"
DC Volt Meter . . . . . Connect test point "Ⓜ" to "Ⓝ". (Both side R222 and R207).

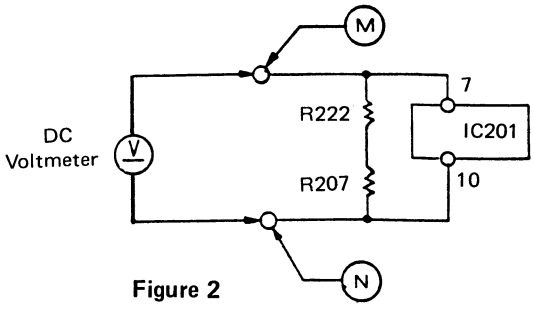
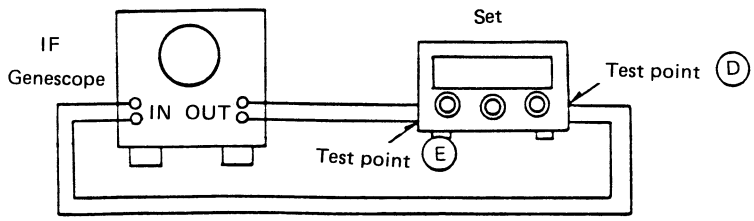
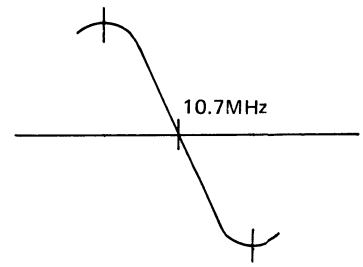


Figure 2

No.	Adjust for	Adjustment	Remark
1	0V	T201	See figure 2.
2	Maximum linear S curve	T202	See figure 3 (a, b)



(a)

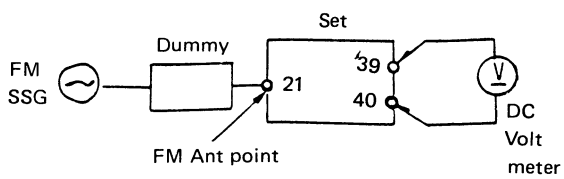


(b)

Figure 3

FM RF Adjustment

Signal Generator . . . . . Connect to the FM ant (21) through the dummy ant.
DC Volt Meter . . . . . Connect FM VCO point (39) to GND (40).

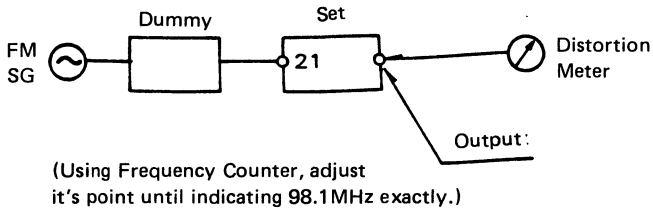


No.	Frequency	Adjust for	Adjustment
1	87.5MHz	4.3V	L6
2	107.9MHz	24.5V	TC5
3	Repeat steps 1 and 2.		
4	90.1MHz	Maximum	L4, L5, L2, L3, T1
5	106.1MHz	Maximum	TC1, TC2, TC3, TC4, T1
6	Repeat steps 4 and 5.		

NOTE: After this adjustment, adjust TC601 for according frequency of SSG with frequency of set.
(Using a scope, adjustment point is 98.1MHz)

FM T.H.D Adjustment

Signal Generator . . . . . Connect to the FM Ant (21) through the dummy.
Distortion Meter . . . . . Connect to the output.

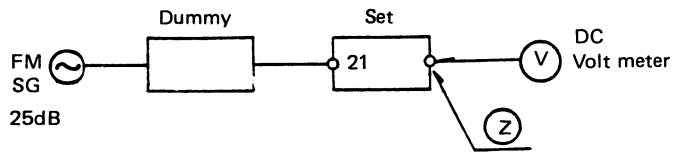


(Using Frequency Counter, adjust
it's point until indicating 98.1MHz exactly.)

No.	Freq.	Adjust for	Adjustment
1	98.1MHz	Minimum	T202

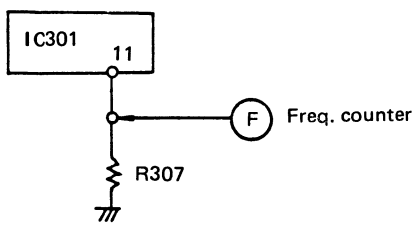
NOTE: After adjustment of T202, adjust end voltage of R222 and R207 with T201.

FM Search Level Adjustment



Input	Adjust for	Adjustment
FM SG 25dB	+5V	VR201

FM MPX Adjustment

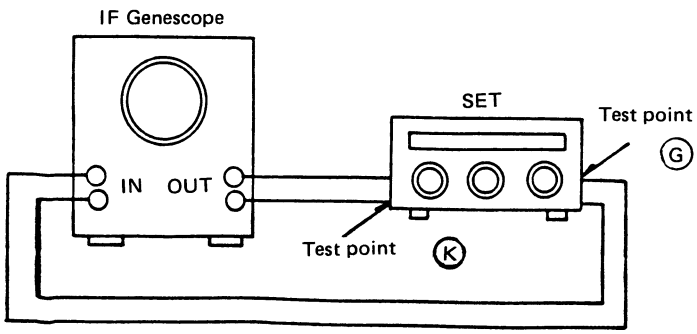


No.	Item	Piolt Signal	Adjust for	Adjustment
1	19kHz	Off	19kHz	VR301
2	ST Separation	On	Difference of R and L must be Maximum.	VR302

NOTE: In the case of adjusting the ST separation, if input is L (or R) channel, R (or L) channel must be minimum.

AM IF Adjustment

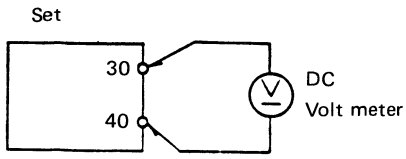
IF Genescope . . . . . The input connects to the test point "Ⓖ" and the output connect to the "Ⓚ"



IF	Adjust for	Adjustment
450kHz	Maximum	T101, T102

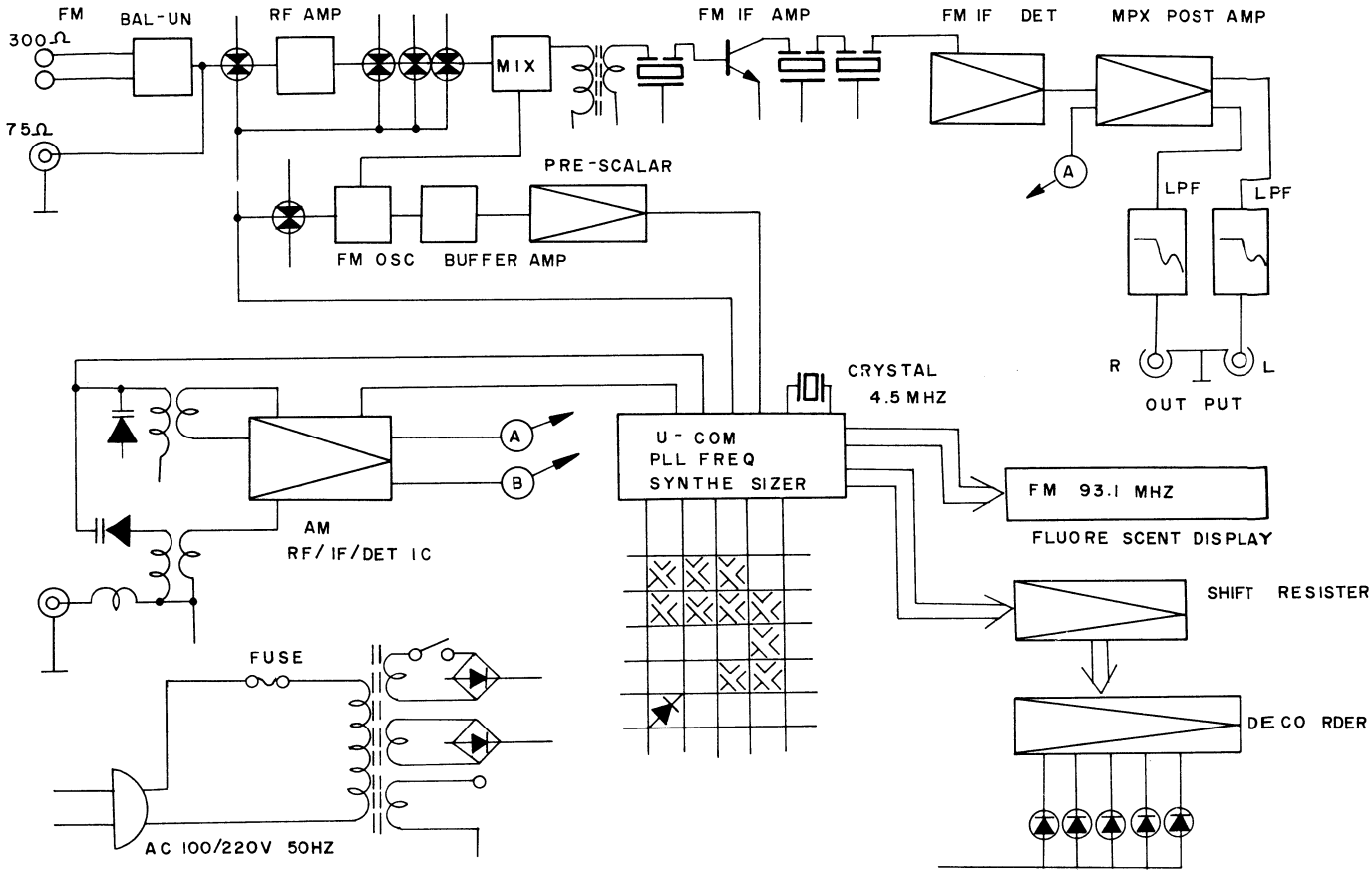
AM RF Adjustment

DC Volt Meter . . . . . Connect the AM VCO (39) to GND (40).



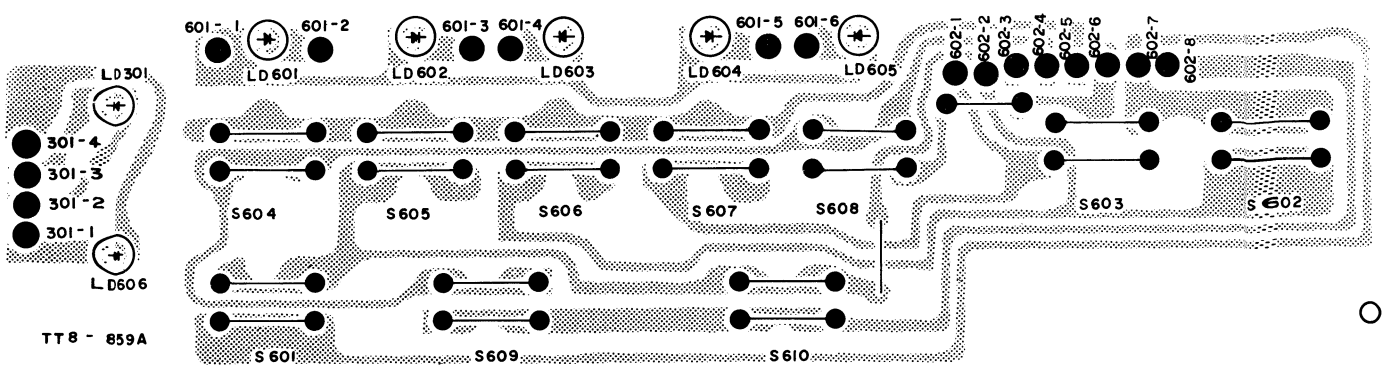
No.	Frequency	Adjust for	Adjustment
1	522kHz	2V	L102
2	1,611kHz	24.5V	TC101
3	Repeat Steps 1 and 2.		
4	594kHz	Maximum	L101
5	1,395kHz	Maximum	TC102
6	Repeat steps 4 and 5.		

BLOCK DIAGRAM

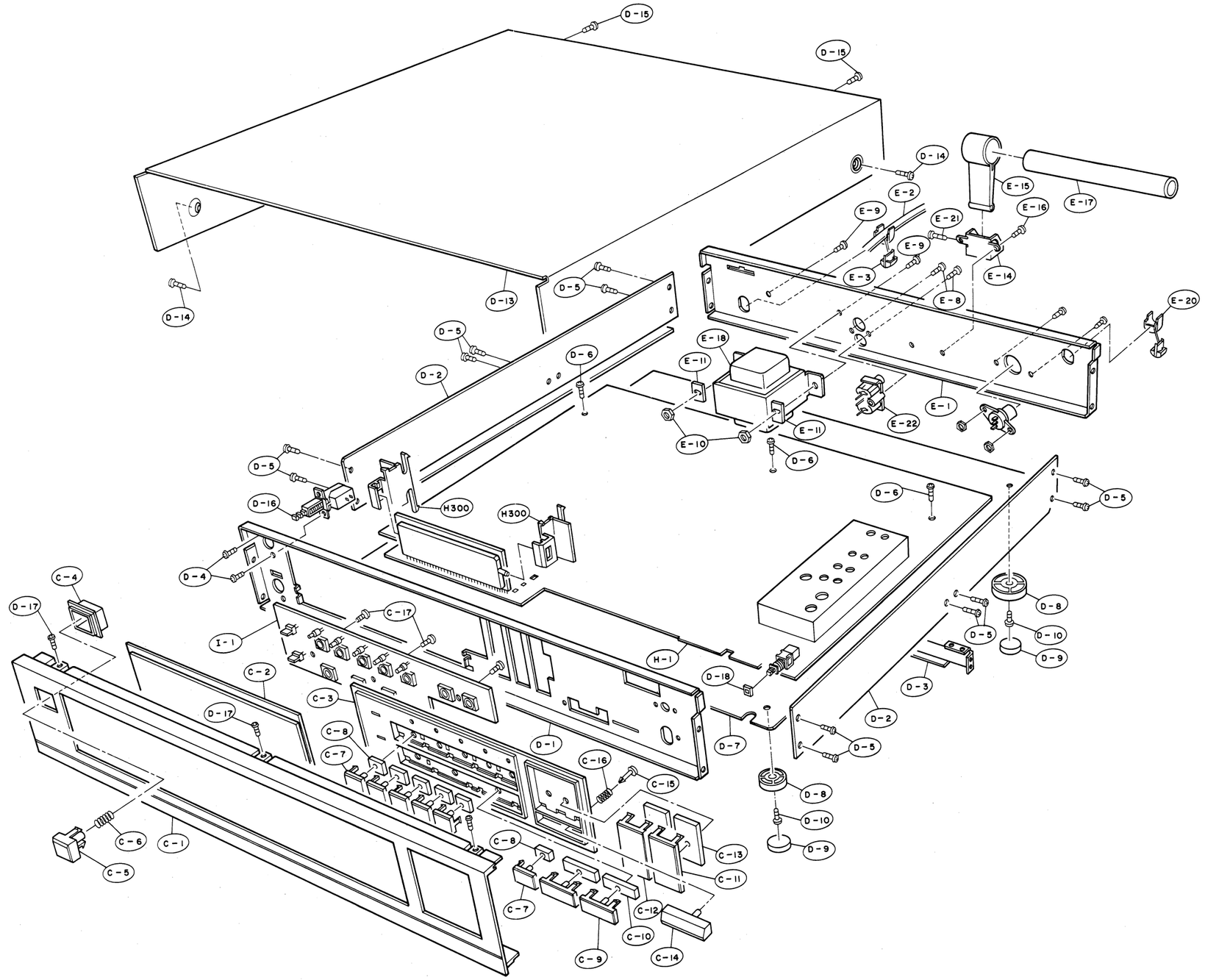


P.C. BOARD ASSEMBLY (COMPONENT SIDE)

SWITCH P.C. BOARD

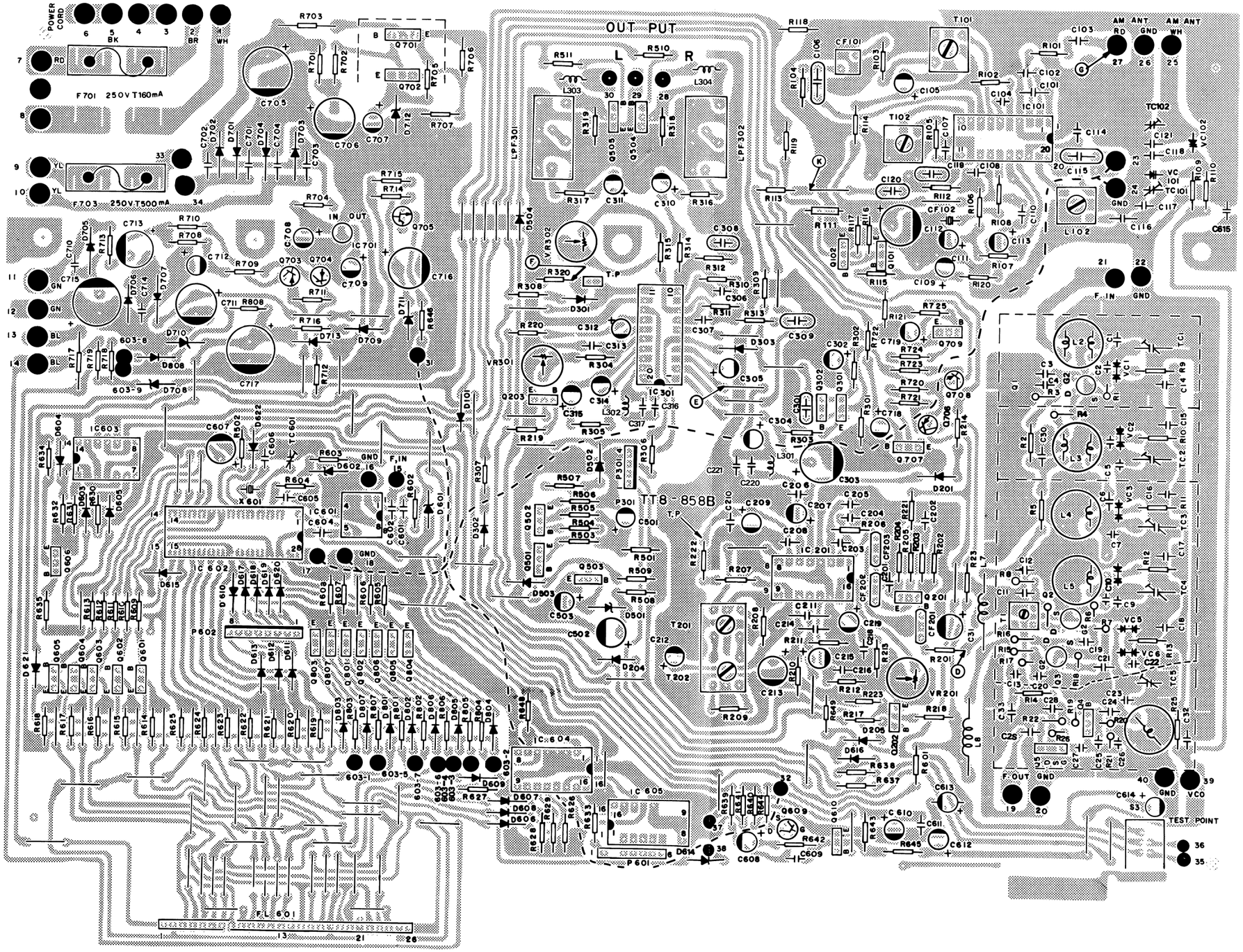


EXPLODED VIEW



P.C. BOARD ASSEMBLY (COMPONENT SIDE)

MAIN P.C. BOARD



ELECTRICAL PARTS LIST

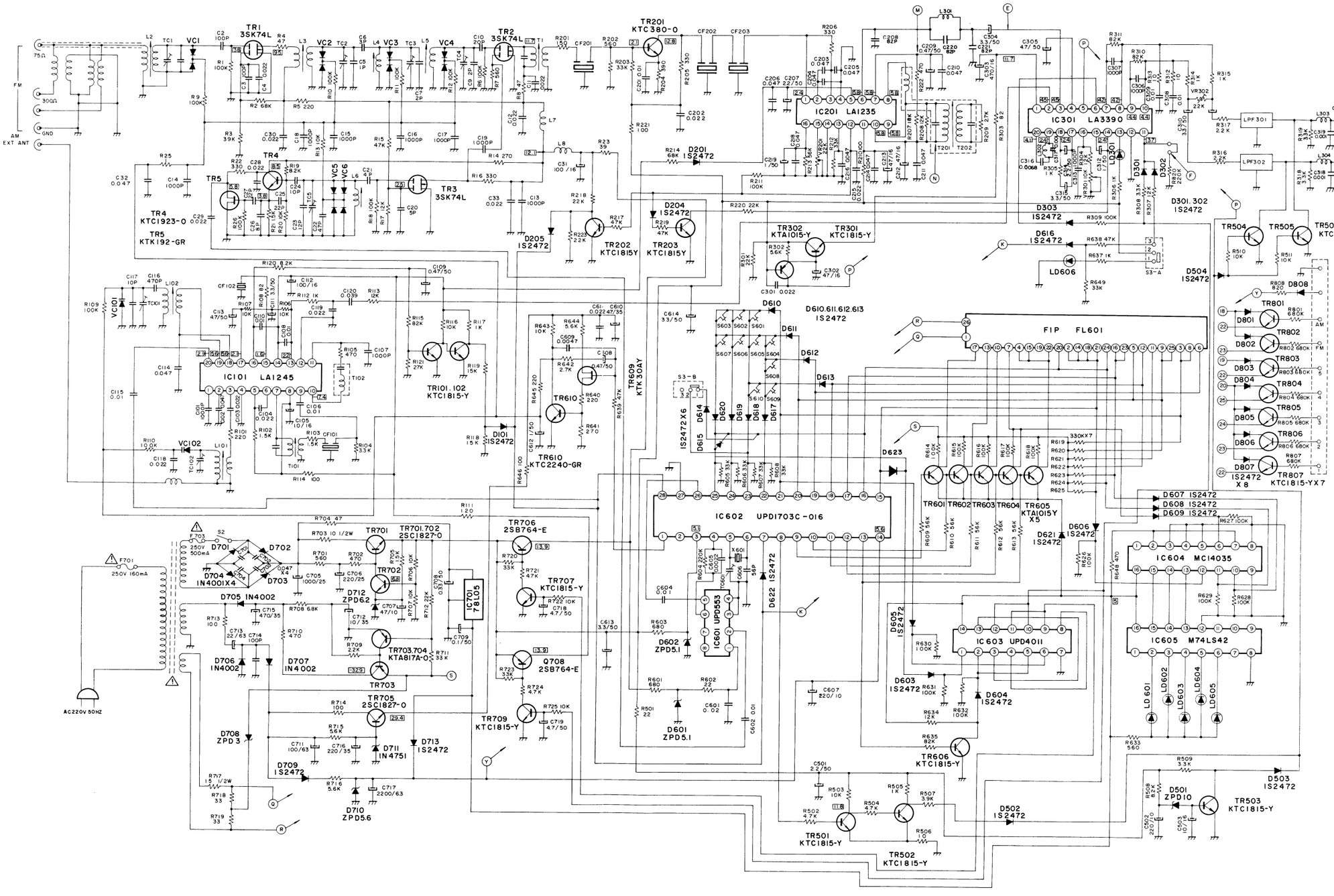
CAUTION: A ⚠ in the schematic diagram and the parts list designates components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 2 in this manual. Do not degrade the safety of the receiver through improper servicing.

Ref. No.	Description	Mfr's Part No.
INTEGRATED CIRCUITS		
IC101	LA1245	668-093A
IC201	LA1235	667-650A
IC301	LA3390	668-095A
IC601	UPB553AC	668-097A
IC602	UPD1703C-016	668-096A
IC603	MC14011BCP	668046A
IC604	MC14035B	668-100A
IC605	SN74LS42	668-099A
IC701	UPC78L05	668-044A
FETS & TRANSISTORS		
Q1	FET, 3SK74L	667-014A
Q2	FET, 3SK74L	667-014A
Q3	FET, 3SK74L	667-014A
Q4	TR, KTC1923-O	665-819B
Q5	FET, KTK192TM-GR	667-012A
Q101	TR, KTC1815-Y	665-812B
Q102	TR, KTC1815-Y	665-812B
Q201	TR, KTC380TM-O	665-820B
Q202	TR, KTC1815-Y	665-812B
Q203	TR, KTC1815-Y	665-812B
Q301	TR, KTC1815-Y	665-812B
Q302	TR, KTA1015-Y	665-813B
Q501~505	TR, KTC1815-Y	665-812B
Q601~605	TR, KTA1015-Y	665-813B
Q606	TR, KTC1815-Y	665-812B
Q609	FET, KTK30AY	667-010C
Q610	TR, KTC2240-GR	665-817A
Q701	TR, 2SC1827-O	665-882B
Q702	TR, KTC2240-GR	665-817A
Q703	TR, KTA817A-O	665-833C
Q704	TR, KTA817A-O	665-833C
Q705	TR, 2SC1827-O	665-882B
Q706	TR, 2SB764-E	665-600A
Q707	TR, KTC1815-Y	665-812B
Q708	TR, 2SB764-E	665-600A
Q709	TR, KTC1815-Y	665-812B
Q801~807	TR, KTC1815-Y	665-812B
DIODES		
D101	1S2472 (T-77)	652T605B
D201	1S2472 (T-77)	652T605B
D204	1S2472 (T-77)	652T605B
D205	1S2472 (T-77)	652T605B
D301~303	1S2472 (T-77)	652T605B
D501	ZPD10	654-612B
D502~504	1S2472 (T-77)	652T605B
D601	ZPD5.1	654-608C
D602	ZPD5.1	654-608C
D603~623	1S2472 (T-77)	652T605B
D701~704	1N4001	652-005A
D705~707	1N4002	652-005B
D708	ZPD3	654-608G
D709	1S2472 (T-77)	652T605B
D710	ZPD5.6	654-608D
D711	ZPY30	654-615F
D712	ZPD6.2	654-608F
D713	1S2472 (T-77)	652T605B
D714	1S2472 (T-77)	652T605B
D801~808	1S2472 (T-77)	652T605B
LD301	LED, SLB-15UR5-ST	653-621A
LD601~605	LED, SLC-26UR-CH1~5	653-617A
LD606	LED, SLB-15GG3-Auto	653-621B
VC1~6	Varactor, 1SV55	654-419A
VC101, 102	Varactor, SVC333A	654-420A
COILS & TRANSFORMERS		
L1	Coil, FM Ant	631-603A
L2	Coil, FM RF	635-607V
L3	Coil, FM RF	635-607S
L4	Coil, FM RF	635-607U
L5	Coil, FM RF	635-607U
L6	Coil, FM RF	635-607T
L7	Coil, Choke	636-602B
L8	Coil, Choke	636-602B
L101	Coil, AM Ant	632-615F
L102	Coil, AM OSC	634-620Q
L301	Coil, Peaking 20.8mH	637-601D
L302	Coil, Peaking 20.8mH	637-601D
L303	Coil, Peaking 7.8mH	637-601E
L304	Inductor Fixed 2 Core 47mH	637-604A
T1	Trans, FM IF	644-610B
T101	Trans, FM IF	644-601B
T102	Trans, AM IF	644-601C
T201	Discriminator	647-606A
T202	Discriminator	647-606A
⚠ T701	Trans, Power 220V	641-673Z
FILTERS & TRIMMERS		
CF101	Filter, Ceramic SFP450H	616-004B
CF102	Filter, Ceramic BFU450C4N	616-021A

Ref. No.	Description	Mfr's Part No.
CF201	Filter, Ceramic SFE 10.7MA8	616-007A
CF202	Filter, Ceramic SFE 10.7MA8	616-007A
CF203	Filter, Ceramic SFE 10.7MA8	616-007A
LPF301	Filter, Low-pass	639-606A
LPF302	Filter, Low-pass	639-606A
TC1~4	Trimmer, CTY121B273	623-025A
TC5	Trimmer, ECV-1ZW10x31	623-026A
TC101	Trimmer, TZ03R200F	623-001C
TC102	Trimmer, TZ03T110F	623-001A
TC601	Trimmer, TZ03P600F	623-001B

Ref. No.	Description	Mfr's Part No.
MISCELLANEOUS		
X601	Crystal 4.5MHz	617-601D
S3-A/B	SW, Push-Manual/Auto, Mono/Stereo	554-623A
S2	SW-Power	554-612A
FL601	Digitron Fip7D8	659-021A
⚠F701	Fuse, 250V 160mA	585-101B
⚠F703	Fuse, 500mA	585-105B
VR301	VR, Semi-fixed 10kB	613-002F
VR201, 302	VR, Semi-Fixed 22kB	613-002D
R703	R, Carbon Film 10-1/2W	RD100J03
R717	R, Carbon Film 150-1/2W	RD150J03
S601~610	SW, KHC10902-CH1~5/Memory/ AM/FM/Tuning-Up/Down	558-013A

SCHEMATIC DIAGRAM



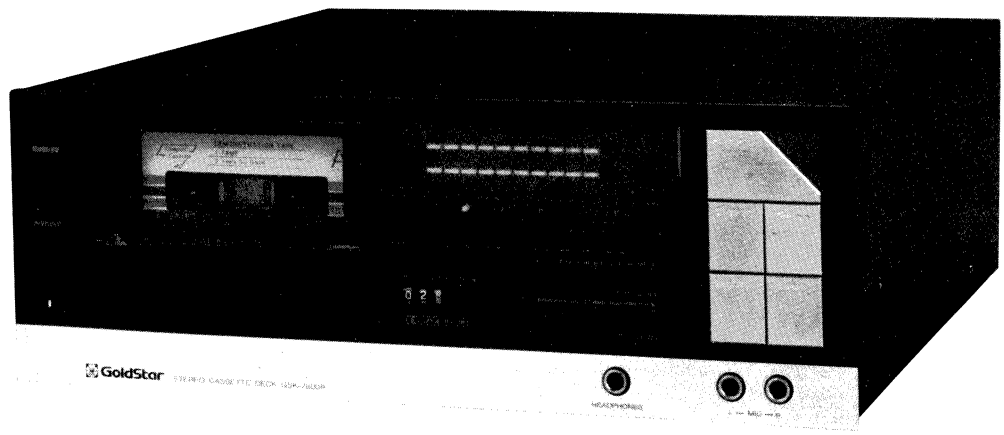
MECHANICAL PARTS LIST

Ref. No.	Description	Mfr's Part No.	Ref. No.	Description	Mfr's Part No.
C-1	Panel, Front	258-701O	E-21	Screw, MRC+3x24	MRC1848I
C-2	Window, Digitron	236-683B	E-22	Jack, Block	576-003B
C-3	Escutcheon, Front	245-702B	E-23	Washer, Spring	WSB2200O
C-4	Guide, Power Knob	384-701A	E-25	Socket Ant	573-002A
C-5	Knob, Power	273-716A	E-26	Screw, MRC+3x8 FBK	MRC1836I
C-6	Spring, Knob	442-634R	E-27	Nut, NH1-3 FZMY	NHA1800J
C-7	Knob, Soft-Touch	273-719A	H-1	PWB, Main	513-858B
C-8	Cushion	447-701C	H-300	Holder, Digitron	324-701A
C-9	Knob, Band	273-720A	I-1	PWB, Switch	513-859A
C-10	Cushion	447-701B			
C-11	Knob, Up	273-717A			
C-12	Knob, Down	273-717B			
C-13	Cushion	447-701A			
C-14	Knob, Push	273-718A			
C-15	Holder, Push Knob	324-426A			
C-16	Spring, Knob	442-634G			
C-17	Screw, TRQ2x6 FZMY	TRQ0930J			
D-1	Chassis, Front	313-704A			
D-2	Frame, Side L/R	315-701B			
D-3	Frame, Cross	315-702A			
D-4	Screw	MRC1830J			
D-5	Screw, TBQ+3x8 FZMY	TBQ1836J			
D-6	Screw, TRQ2+3x8A	TRQ1836J			
D-7	Plate, Bottom	256-701A			
D-8	Foot	265-024A			
D-9	Felt	472-610A			
D-10	Screw, TRQ2+3x8A	TRQ1836J			
D-11	Screw, TRQ2+3x8A	TRQ1836J			
D-12	Screw, Tapping	TCQ1836J			
D-13	Cabinet	213-701C			
D-14	Screw, Special	353-072D			
D-15	Screw, TRQ2+3x8A FBK	TRQ1836I			
D-16	Switch-Power	554-612A			
D-17	Screw, TCQ+3x8 FZMY	TCQ1836J			
D-18	Bushing, Push SW	341-004A			
D-19	Washer, Nonmetal	354-602D			
D-20	Cushion	447-907B			
D-21	Cushion	447-907C			
E-1	Chassis, Back	313-701B			
E-2	Cord, Power	681-003P			
E-3	Holder, Cord Heyco	324-348A			
E-8	Screw, TRQ253x10A FBK	TRQ1839I			
E-9	Screw, MRC+4x14 FBK	MRC2243I			
E-10	Nut, NHA-40 FZMY	NHA2200J			
E-11	Plate, Square	256-389A			
E-14	Bracket, Ext Ant	321-906A			
E-15	Holder, Ext Ant	324-441B			
E-16	Screw, TRQ253x10A FBK	TRQ1839I			
E-17	Coil, Ant Ext, AM	632-615F			
⚠ E-18	Trans, Power 220V	641-673X			
E-20	Holder, Cord Heyco	324-348A			

NOTES

STEREO CASSETTE DECK

MODEL GSK-7800R



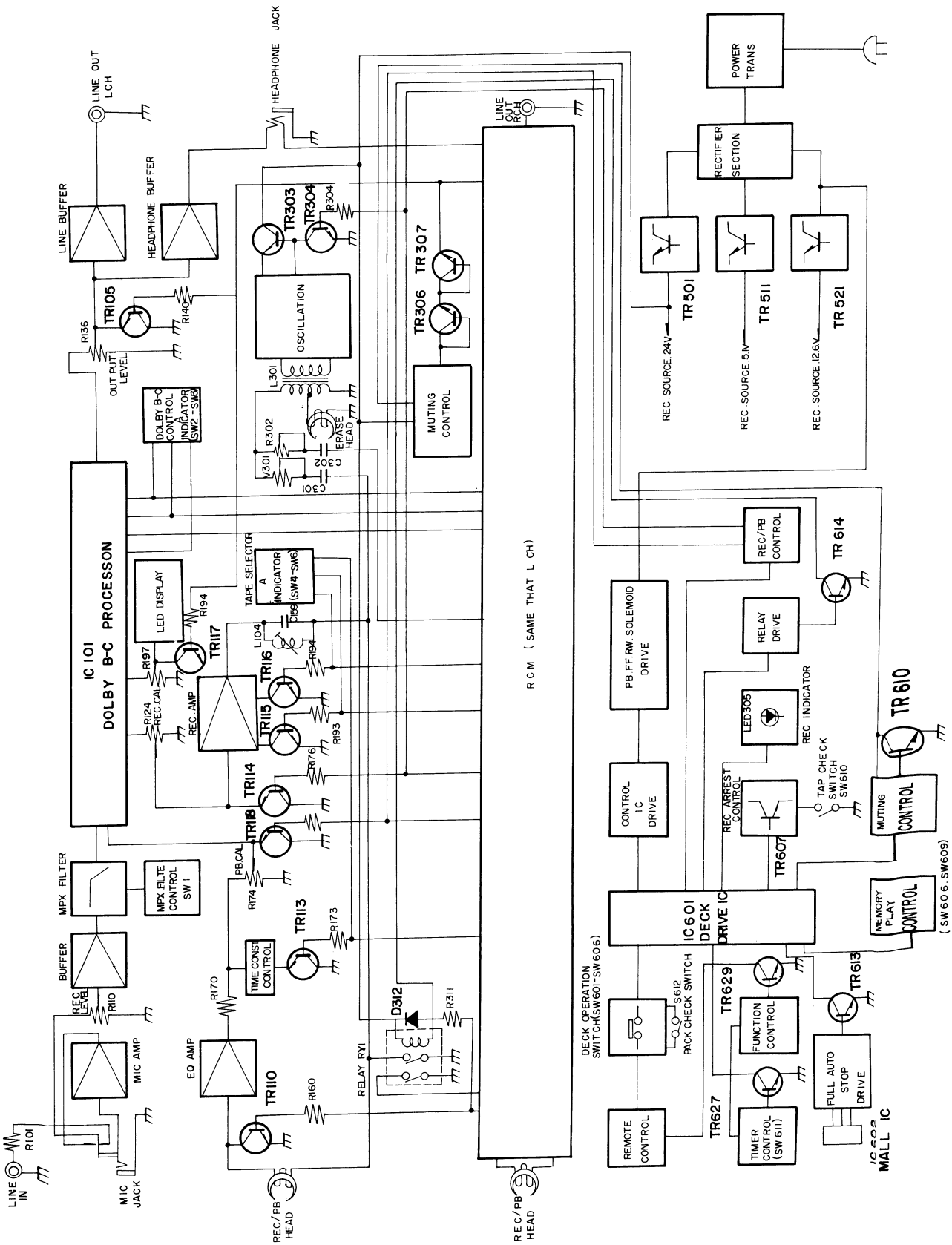
1. SPECIFICATIONS ..... - 27
2. BLOCK DIAGRAM ..... - 28
3. ALIGNMENT INSTRUCTIONS ..... - 29
4. STANDARD MAINTENANCE ..... - 33
5. P.C. BOARD ASSEMBLY (COMPONENT SIDE) ..... - 34
6. EXPLODED VIEW FOR CABINET ..... - 36
7. EXPLODED VIEW FOR DECK MECHANISM ..... - 37
8. ELECTRICAL PARTS LIST ..... - 38
9. MECHANICAL PARTS LIST ..... - 40
10. SCHEMETIC DIAGRAM FOR CASSETTE PART ..... - 42
11. SCHEMETIC DIAGRAM FOR CONTROL PART ..... - 43

SPECIFICATIONS

1. Track system . . . . . 4 track 2 channel
2. Recording system . . . . . AC bias (85kHz)
3. Erasing system . . . . . AC erasing system
4. Erase ratio . . . . . More than 65dB
5. Tape speed . . . . . 4.75 cm/sec
6. Wow & flutter . . . . . Less than 0.05% (WRMS)
7. F.F & Rew time . . . . . 100 Sec (C-60)
8. Frequency response . . . . . Normal 30 ~ 1,700Hz CrO_2/Metal 30 ~ 1,800Hz
9. T.H.D. (Rec/PB) . . . . . 1.0% (1kHz OVU)
10. S/N ratio (Rec/PB) . . . . . 50dB (Dolby Off)
    60dB (Dolby-B Type)
    70dB (Dolby-C Type)
11. Cross talk 65dB
12. Channel separation 35dB
13. Input sensitivity . . . . . Line In 100mV, Mic 2mV
14. Input impedance . . . . . Line In 50kΩ, Mic 600Ω
15. Output level 0.6V (0VU)
16. Semiconductors . . . . . 6ICs, 76TRs, 44 Diodes, 29 LEDes.

NOTE: This specifications may be changed for improvement of performance without notice.

BLOCK DIAGRAM



ALIGNMENT INSTRUCTIONS

This cassette deck has been aligned at the factory and normally will not require further adjustment. As a result, it is not recommended that any attempt is made to modify any circuit. If any parts are replaced or if anyone tampers with the adjustment, realignment may be necessary.

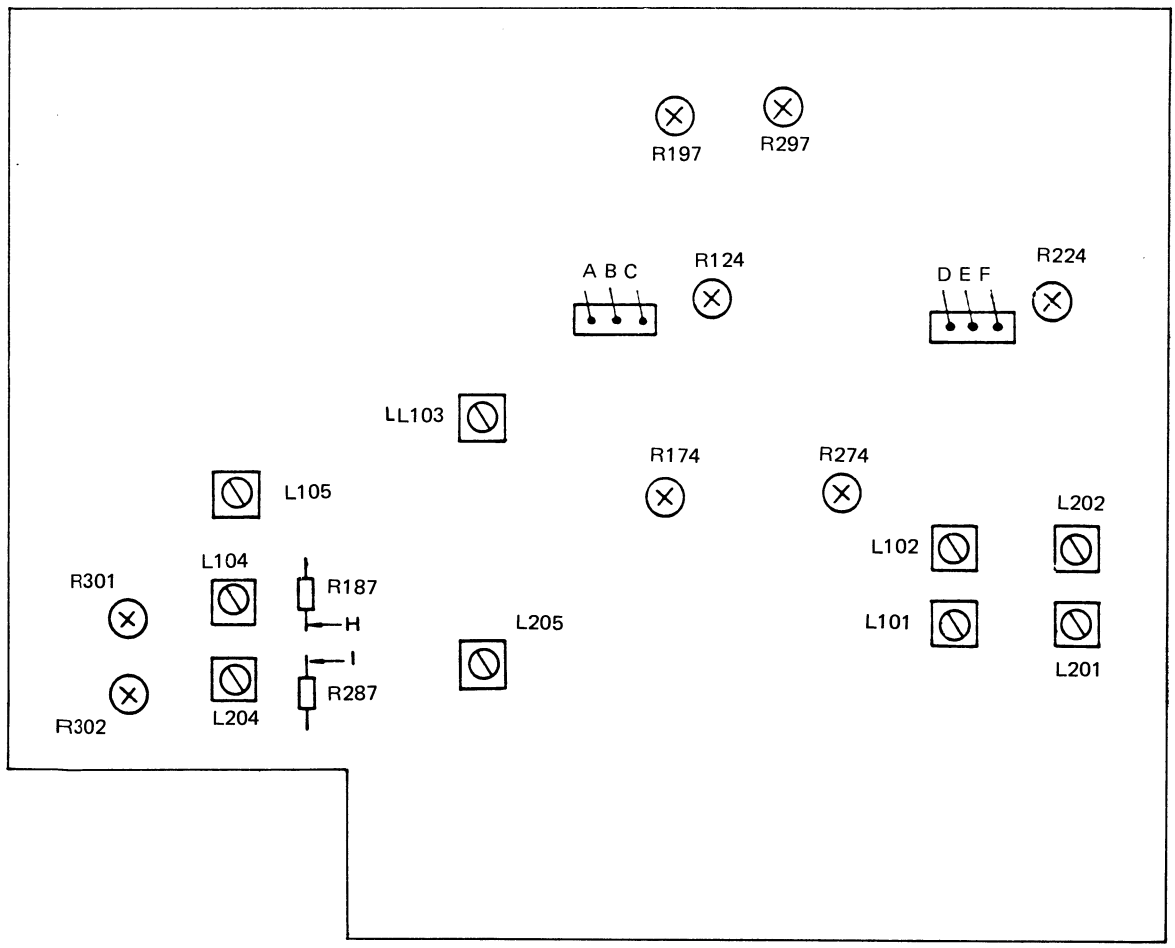
Test equipment rquired

1. Automatic Frequency Oscillator
2. VTVM
3. Attenuator

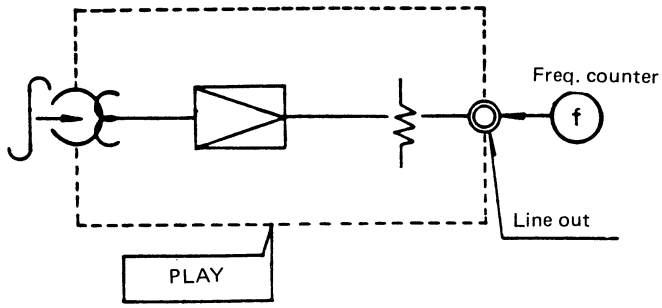
Test Tape

1. Test Tape MTT-150 (400Hz, Dolby Adjustment)
2. Test Tape MTT-114 (10kHz, Aximuth Adjustment)
3. Check Tape (Normal, CrO_2, Metal)

Test and adjustment points

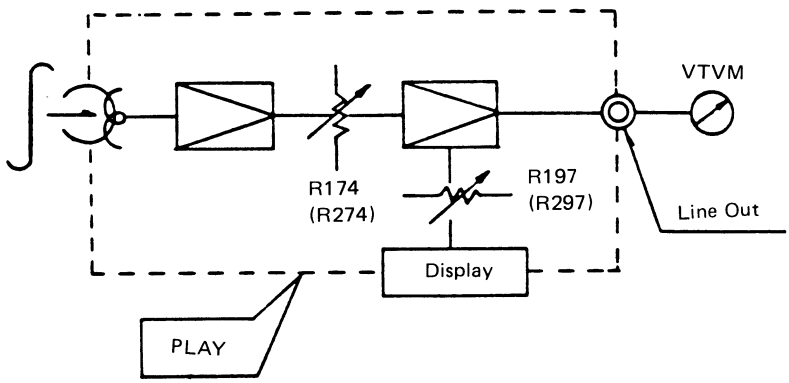


1. Motor Speed Adjusteent



Input	Adjust for	Adjustment
MTT-111	2970~ 3060Hz	Variable Register in Motor

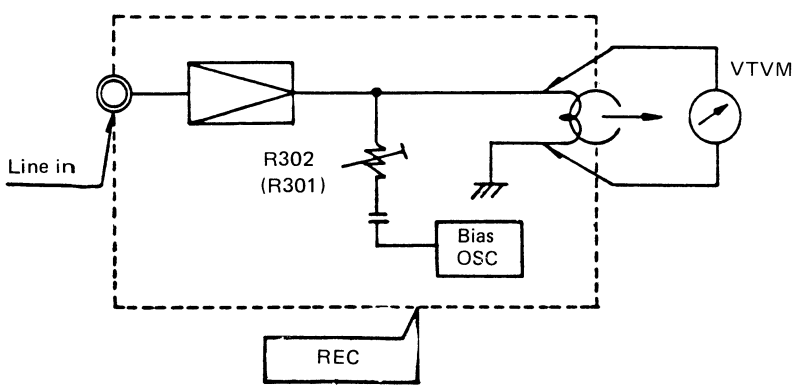
2. Play Level/Meter Adjustment



No	Input	Adjust for	Adjustment
1	MTT-150 (400Hz)	600mV	L: R174 R: R274
2	"	OVU (Display)	L: R297 R: R297

NOTE: Tape Select Switch – Normal Position

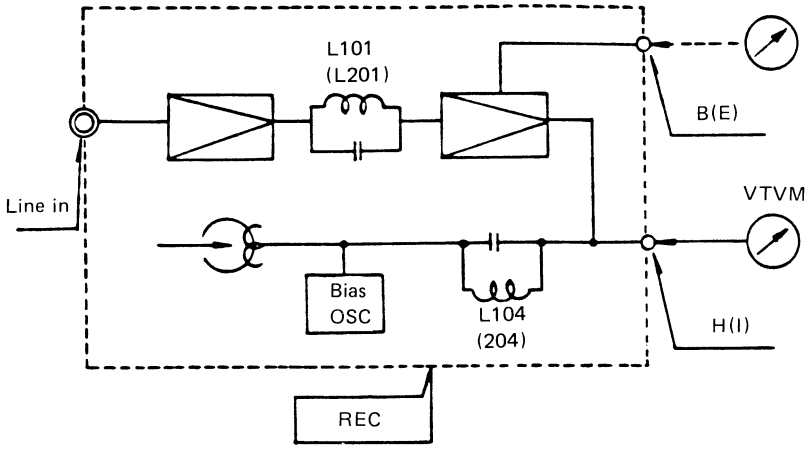
3. Bias Current Adjustment



Input	Adjust for	Adjustment
No Signal	AC 30V	L: R302 R: R301

NOTE: Tape Select Switch – Metal Position

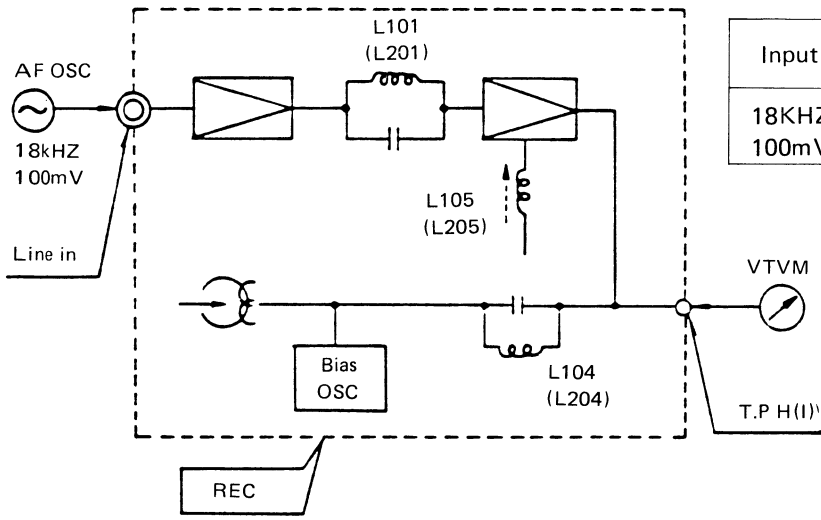
4. Bias Trap/Bias Filter Adjustment



No	Input	Adjust for	Adjust-ment	Remarks
1	No Signal	Minimum	L:L104 R:L204	* 1
2	No Signal	Minimum	L:L101 R:L201	* 2

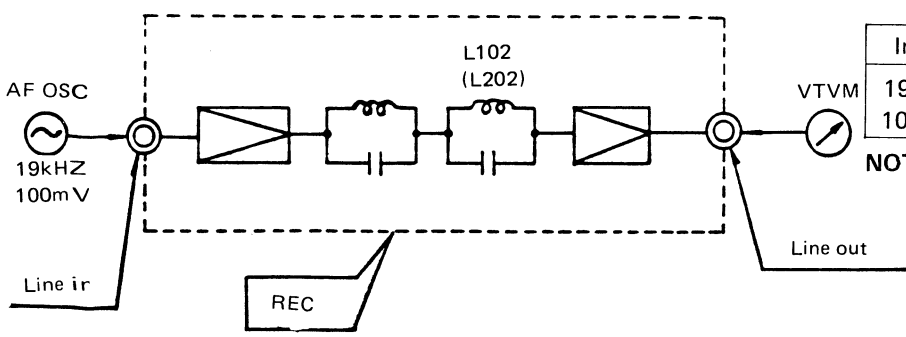
*1. Adjust in the TP H(I).
(Tape Select: Metal Position)
*2. Adjust in the TP B(E).
(Tape Select: Metal Position)

5. Rec Peaking Adjustment



Input	Adjust for	Adjust-ment	Remark
18KHZ 100mV	Maximum	L:L105 R:L205	Adjust in the TP H(I).

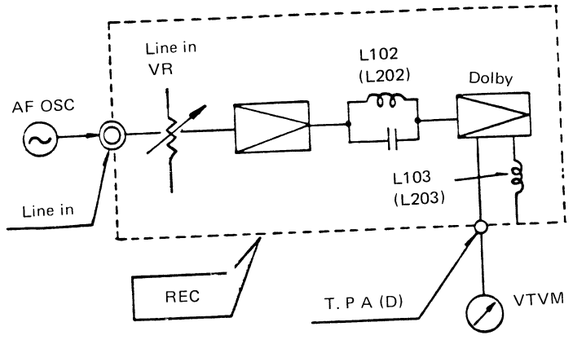
6. MPX Filter Adjustment



Input	Adjust for	Adjustment
19kHZ 100mV	Minimum	L:L102 R:L202

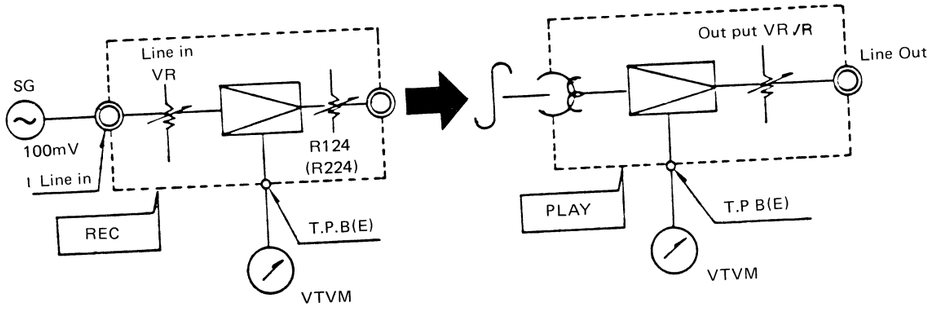
NOTE: Tape Select Switch – Metal Position

7. Spectral Skewing Network Adjustment



No	Input	Adjust for	Adjustment	Remarks
1	1kHZ O dB	500mV O dB	Line in VR	Adjust in the TP A(D).
2	17kHZ O dB	8.3dB down	L:L103 R:L203	Adjust in the TP A(D).

8. Rec Level Adjustment



No.	Recording			Playing		Remarks
1	Input	Adjust for	Adjustment	Adjust for	Adjustment	Dolby: off
2	400Hz 100mV	775mV	Line-in VR	775mV	L: R124 R: R224	Adjust in the each Tape Function.

STANDARD MAINTENANCE

Tape Head Demagnetization

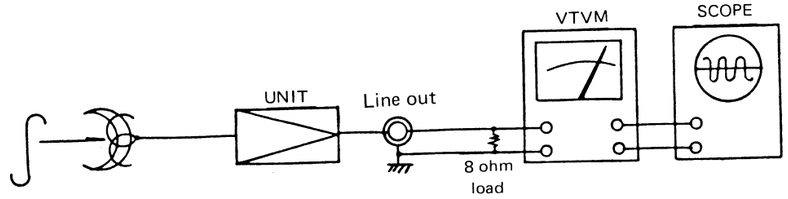
Do not use magnetized tools near the tape heads, since they can magnetize the heads. After long period of use, the heads will retain a small amount of residual magnetism. A magnetized head will result in loss of high frequency response and increased noise. Use a standard tape head demagnetizer and follow the instructions supplied with it to demagnetize the heads.

Tape Head and Capstan Cleaing

Whenever a unit is brought in for service or repair, clean the tape heads, capstan drive shaft and other tape handling surfaces to ensure proper tape handling and optimum frequency response. Use a cotton swab dipped in head cleaner or denatured alcohol to clean all tape handling surfaces. Wipe dry.

Aximuth Adjustment

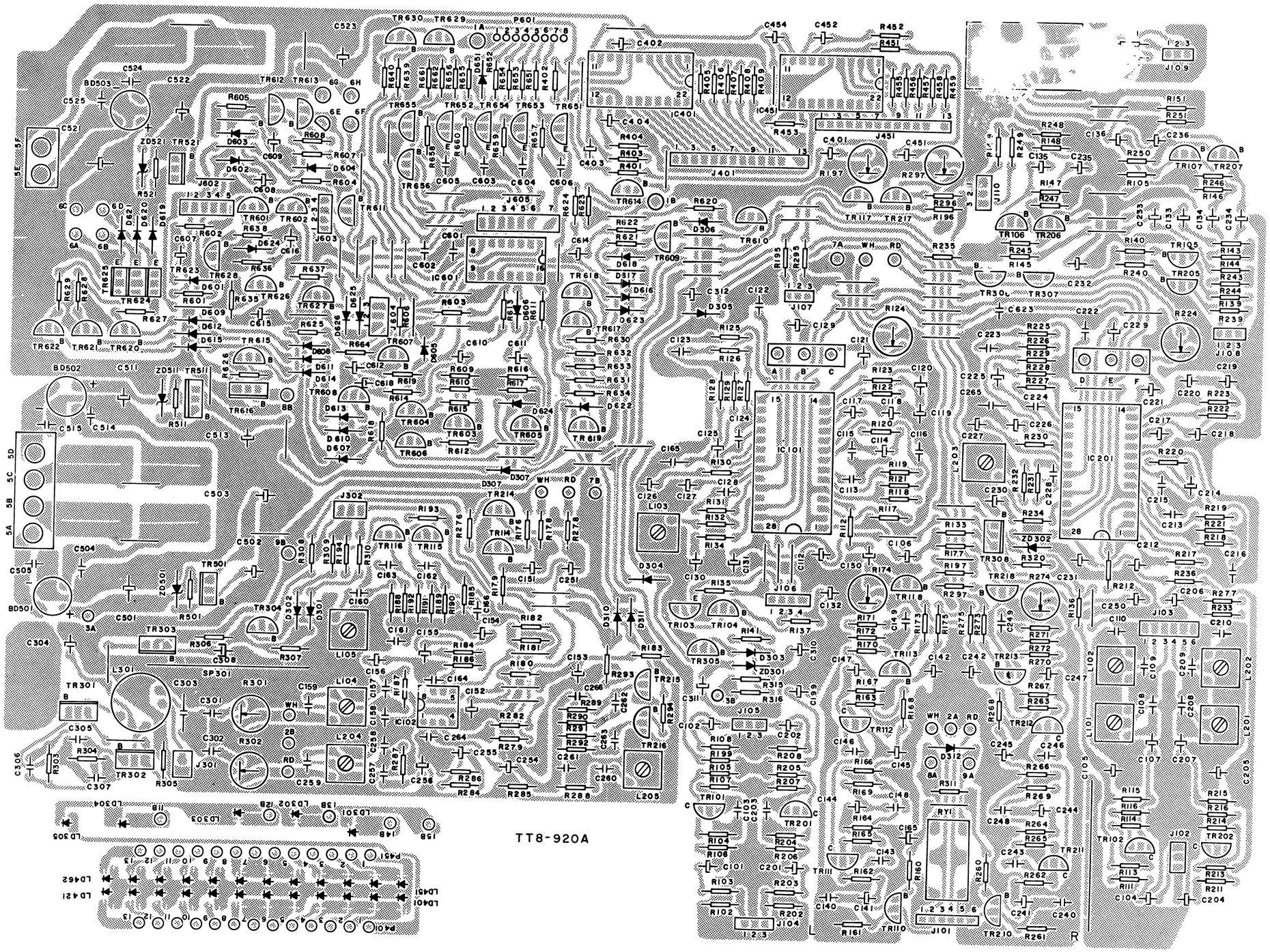
1. Azimuth adjustment is normally required when the head is replaced, or for cases of cross-talk and poor high frequency response. A test tape is required for such adjustment.
2. Connect a scope or VTVM to the right channel line out jack. Insert a test tape into the unit (use a test tape such as TEAC MTT-114, MTT-115). Adjust the azimuth adjustment screw for maximum output onto the right channel. Use glyptal or other non-hardening cement to lock the azimuth adjustment screw.



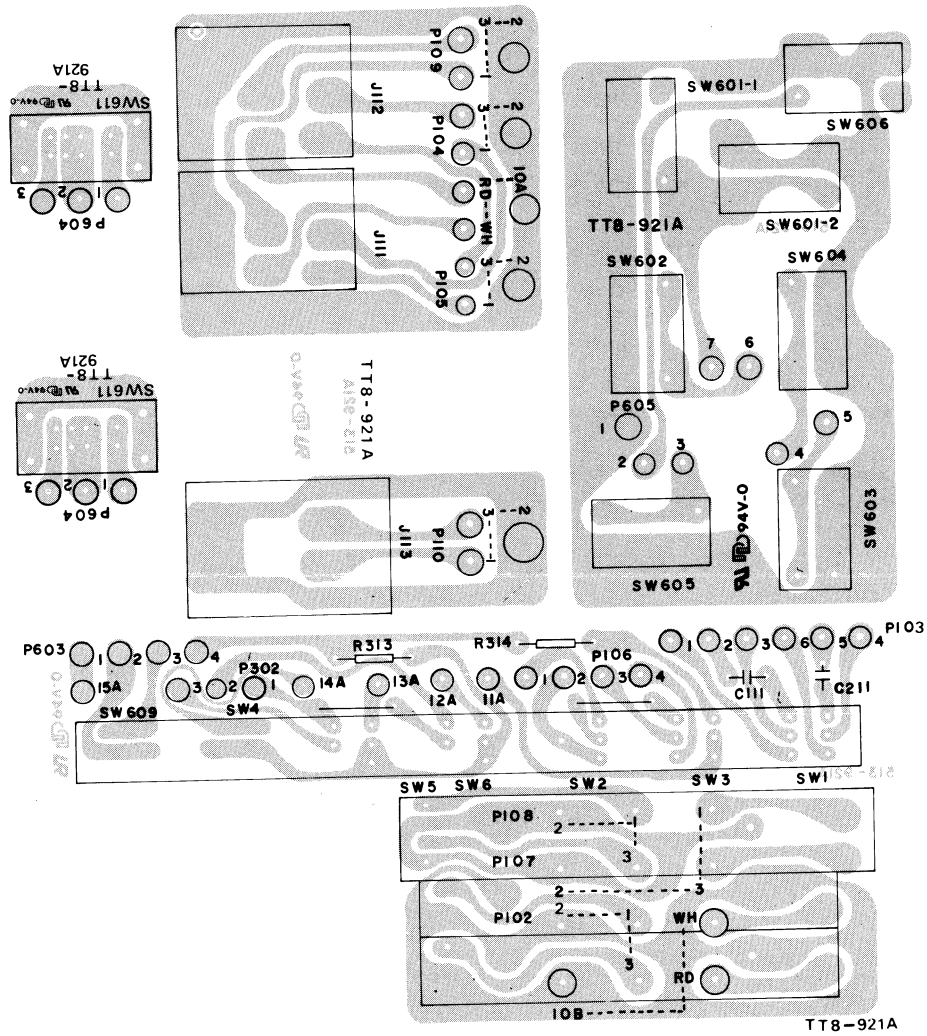
(Left channel is the same as right)

P.C. BOARD ASSEMBLY (COMPONENT SIDE)

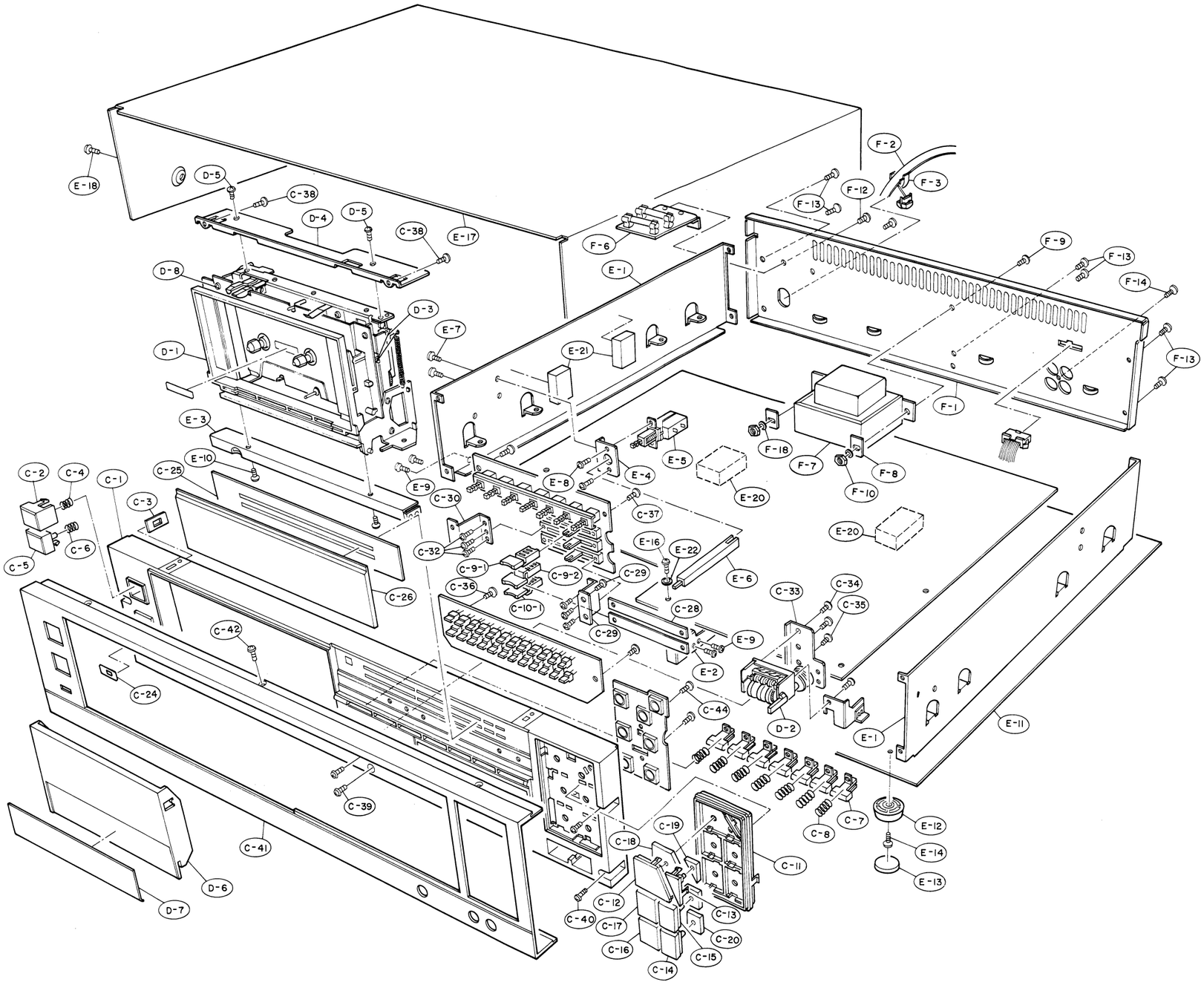
MAIN P.C. BOARD



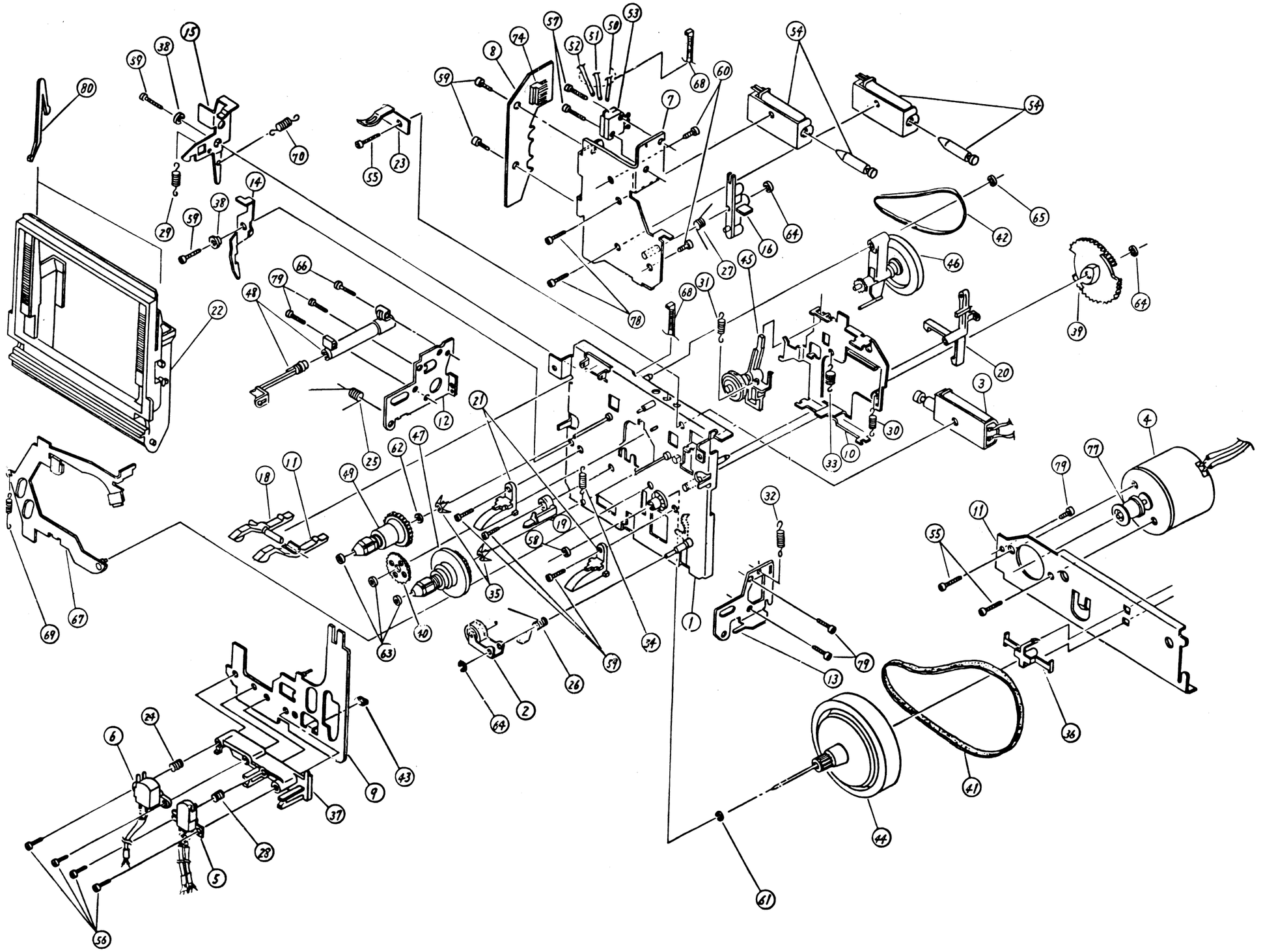
VOLUME P.C. BOARD



EXPLODED VIEW FOR CABINET



EXPLODED VIEW FOR DECK MECHANISM



ELECTRICAL PARTS LIST

CAUTION: A ⚠ in the schematic diagram and the parts list designates components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 2 in this manual. Do not degrade the safety of the receiver through improper servicing.

Ref. No.	Description	Mfr's Part No.
INTEGRATED CIRCUITS		
IC101	HA12058-Dolby C	668-649A
IC102	AN6552	668-067A
IC201	HA12058-Dolby C	668-649A
IC401	LB1412-LED Driver	668-651A
IC451	LB1412-LED Driver	668-651A
IC601	M54410P-Deck Control	668-118A
TRANSISTORS		
TR101	MPS9635C	662-606C
TR102	MPS9635C	662-606C
TR103	KTA1015Y	665-813B
TR104	KTC1815Y	665T812B
TR105	KTC1815Y	665T812B
TR106	KTC1815Y	665T812B
TR107	KTC1815Y	665T812B
TR110	KTC1815Y	665T812B
TR111	MPS9635C	662-606C
TR112	MPS9635C	662-606C
TR113~118	KTC1815Y	665T812B
TR201	MPS9635C	662-606C
TR202	MPS9635C	662-606C
TR205~207	KTC1815Y	665T812B
TR210	KTC1815Y	665T812B
TR211	MPS9635C	662-606C
TR212	MPS9635C	662-606C
TR213~218	KTC1815Y	665T812B
TR301	2SC1827Y	665-882C
TR302	2SC1827Y	665-882C
TR303	2SC1827Y	665-882C
TR304~307	KTC1815Y	665T812B
TR308	2SC1827Y	665-882C
TR501	2SC1827Y	665-882C
TR511	2SC1827Y	665-882C
TR521	2SC1827Y	665-882C
TR601~615	KTC1815Y	665T812B
TR616	KTC1959Y	665-814B
TR617~622	KTC1815Y	665T812B
TR623	TIP32B	665-805A
TR624	TIP32B	665-805A
TR625	TIP32B	665-805A
TR626~630	KTC1815Y	665T812B
TR651	KTA1015Y	665-813B
TR652	KTA1015Y	665-813B
TR653	KTA1015Y	665-813B
TR654	KTA1015Y	665-813B
TR655	KTC1815Y	665T812B
TR656	KTC1815Y	665T812B
DIODES		
D301~307	IS2472 (T-77)	652T605B
D310	IS2472 (T-77)	652T605B
D311	1S2472 (T-77)	652T605B
D312	1N4002	652-005B
D601~604	1S2472 (T-77)	652T605B
D605	1S2472	652-605B
D606~618	1S2472 (T-77)	652T605B
D619	1N4002	652-005B
D620	1N4002	652-005B
D621	1N4002	652-005B
D622~626	1S2472 (T-77)	652T605B
D651	1S2472 (T-77)	652T605B
BD501	W005M	652-013B
BD502	W005M	652-013A
BD503	W005M	652-013A
LD301~304	LED, SLC26-GG GN	653-617B
LD305	LED' SLC-26UR RD	653-617A
LD401~410	LED, SLJ265UR5HL GN	653-630B
LD411	LED, SLJ265UR5HL RD	653-630A
LD412	LED, SLJ265UR5HL RD	653-630A
LD451~460	LED, SLJ265MG5HL GN	653-630B
LD461	LED, SLJ265UR5HL RD	653-630A
LD462	LED, SLJ265UR5HL RD	653-630A
ZD301	APD-18	654-607D
ZD302	ZPD-15	654-607C
ZD501	ZPD-24	654-607E
ZD511	ZPD-5, 6	654-608D
ZD521	ZPD-13	654-607B
COILS		
L101	Trap	638-601C
L102	Trap	638-601C
L103	Trap, 36mH	638-601G
L104	Trap	638-601C
L105	Trap	638-601C
L201	Trap	638-601C
L202	Trap	638-601C
L203	Trap, 36mH	638-601G
L204	Trap	638-601C
L205	Trap	638-601C
L301	Bias Osc, 1.7mH	634-608C

Ref. No.	Description	Mfr's Part No.
VOLUMES		
R110	VR, 100kA	612-611B
R124	VR, Semi-Fixed 10kB	613-002F
R138	VR, 100kB	612-612A
R174	VR, Semi-Fixed 47kB	613-002G
R197	VR, Semi-Fixed 10kB	613-002F
R210	VR, 100kA	612-611B
R224	VR, Semifixed 10kB	613-002F
R238	VR, 100kB	612-612A
R274	VR, Semi-Fixed 47kB	613-002G
R297	VR, Semi-Fixed 10kB	613-002F
R301	VR, Semi-Fixed 150kB	613-002E
R302	VR, Semi-Fixed 150kB	613-002E

Ref. No.	Description	Mfr's Part No.
MISCELLANEOUS		
RY1	Relay, MR62-24S	557-013A
SW601~607	SW, Tact kHC10902	558-013A
S701	SW, Push-Power	554-612B
SW611	SW, Slide	552-639A
F701 ⚠	Fuse, 250V 315mA	585-103B
	Jack, D=6.4 Headphone	572-159C
	Jack, D=6.4 Headphone	572-159D

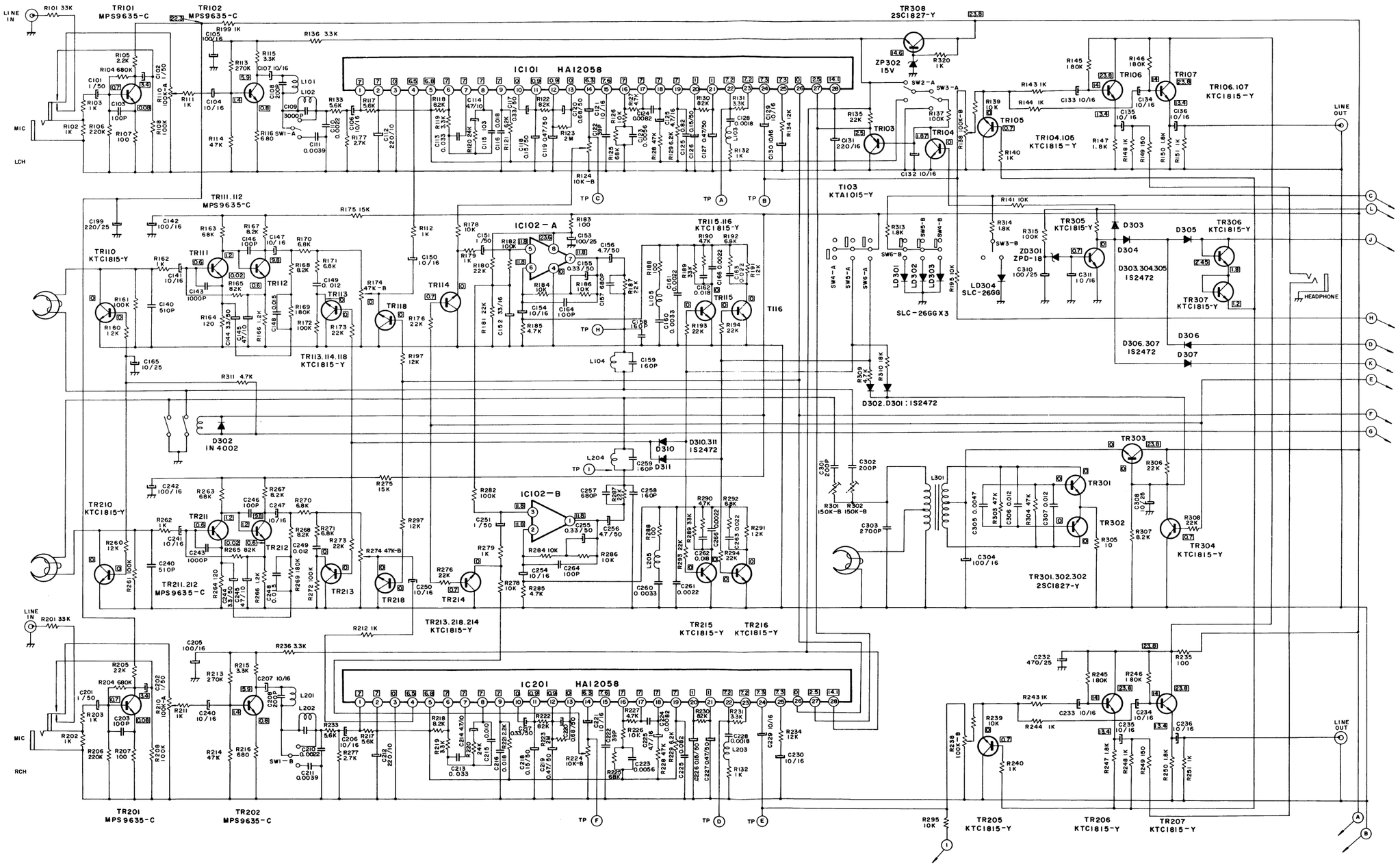
MECHANICAL PARTS LIST

Ref. No.	Description	Mfr's Part No.	Ref. No.	Description	Mfr's Part No.
C-1	Panel, Front	258-655A	E-1	Frame, Side L/R	315-185A
C-2	Knob, Eject	273-382A	E-2	Frame, Cross	315-186A
C-3	Holder, Eject	324-498A	E-3	Bracket Deck Down	321-562A
C-4	Spring, Knob	442-634R	E-4	Bracket, Power Switch	321-566A
C-5	Knob, Power	273-716A	E-5	Switch-Power	554-612B
C-6	Spring, Knob	442-634R	E-6	Holder, Power	324-497A
C-7	Knob, Push	273-381A	E-7	Screw, TRQ2+3 x 6A	TRQ1830J
C-8	Spring, Coil	442-634S	E-8	Screw	MRC1830J
C-9-1	Knob, Slide-Output Level	273-380A	E-9	Scres, TRQ2+3 x 6A	TRQ1830J
C-9-2	base, Slide Knob	225-701B	E-10	Screw, TRR+3 x 4	TRR1822J
C-10-1	Knob, Slide-Rec Level	273-379A	E-11	Plate, Bottom	256-701A
C-10-2	Base, Slide Knob	225-701B	E-12	Foot	256-024A
C-11	Housing, Knob	219-613A	E-13	Felt	472-610B
C-12	Knob-Play	273-725A	E-14	Screw, TRQ2+3 x 8A	TRQ1836J
C-13	Knob-Rec.	273-726A	E-15	Screw, TRQ2+3 x 8A	TRQ1836J
C-14	Knob-FF	273-378A	E-16	Screw, TRR3+3 x 8A	TRR1836J
C-15	Knob-Rew	273-378B	E-17	Cabinet	213-635B
C-16	Knob-Pause	273-378C	E-18	Screw, Special	353-072D
C-17	Knob-Stop	273-378D	E-20	Cushion	447-907E
C-18	Cushion, Knob-Play	447-702A	E-21	Cushion	447-602G
C-19	Cushion, Knob-Rec	447-703A	E-22	Washer, Nonmetal	354-602I
C-20	Cushion, Knob-FF/Rew	447-701D	F-1	Chassis, Back	313-302B
	/Pause/Stop		F-2	Cord, Power	681-003D
C-24	Plate, Deco Timer	256-738A	F-3	Holder, Cord Heyco	324-348A
C-25	Plate, Deco LED	256-721A	F-6	Holder Assy, W/Bracket	586-023B
C-26	Window	236-210A	⚠ F-7	Trans, Power	641-677C
C-27	Plate, Deco Slide "A"	256-719A	F-8	Plate, Square	256-389A
C-28	Plate, Deco Slide "B"	256-720A	F-9	Screw, Special	353-927C
C-29	Screw, Special	353-025E	F-10	Nut, NHA-4.0 FZMY	NHA2200J
C-30	Bracket, Slide SW-L	321-565A	F-12	Screw, TRQ2+3 x 8A FBK	TRQ1836I
C-31	Bracket, Slide SW-R	321-565B	F-13	Screw, TRQ2+3 x 8A	TRQ1836I
C-32	Screw 2 x 3	MRC0918J	F-14	Screw, TRQ2+3 x 10A	TRQ1839I
C-33	Bracket, Counter	321-564A	F-18	Washer, Spring	WSB2200B
C-34	Screw	MRC1830J			
C-35	Screw, TRQ2+3 x 8A	TRQ1836J			
C-36	Screw, TRQ2+3 x 8A	TRQ1836J			
C-37	Screw, TRQ2+3 x 8A	TRQ1836J			
C-38	Screw, TRQ2+3 x 10A	TRQ1839J			
C-39	Screw, TRQ2+3 x 20A	TRQ1846J			
C-40	Screw, TRQ2+3 x 8A	TRQ1836J			
C-41	Panel, Front	258-656A			
C-42	Screw, Tapping	TCQ1839J			
C-43	Screw, Special	353-025B			
C-44	Screw, TRQ2+3 x 8A	TRQ1836J			
D-1	Deck, Mech FHE7-041	412-063B			
D-2	Counter Assy, Tape	517-002A			
D-3	Belt, Couter	451-145C			
D-4	Bracket, Deck Up	321-563A			
D-5	Screw, TRR+3 x 4	TRR1822J			
D-6	Window, CST Door	236-209A			
D-7	Deco, Door	246-219A			
D-8	Screw, TRQ2+3 x 6A FBK	TRQ1830I			

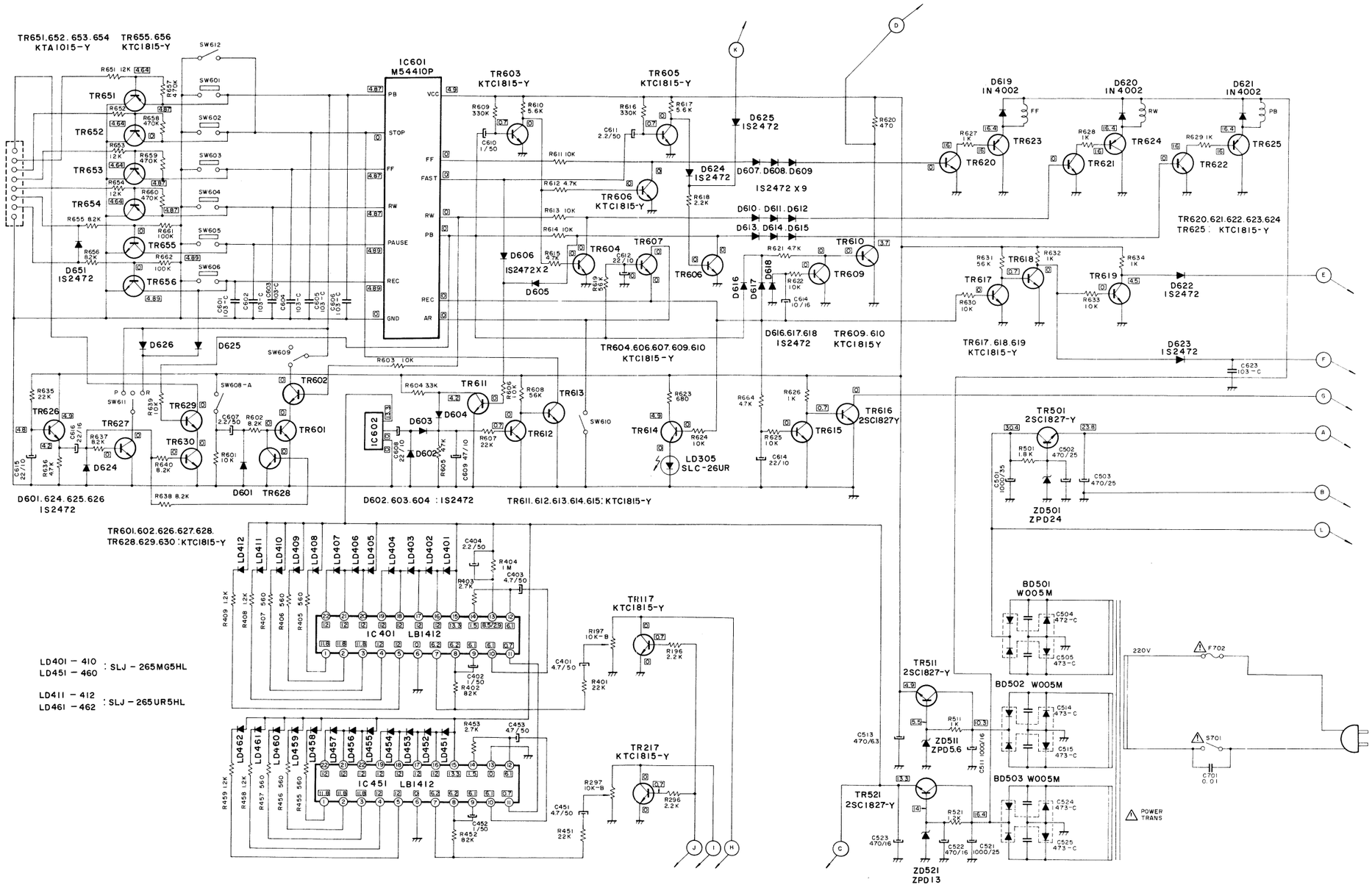
Deck Mechanism

Ref. No.	Description	Mfr's Part No.	Ref. No.	description	Mfr's Part No.
2	Pinch Roller Assy	99A-0001	35	Spring, Back Tention	99A-0020
3	Solenoid Assy	99A-0046	36	Spacer, Flywheel	99A-0021
4	Motor Assy	99A-0047	37	Spacer, Head	99A-0022
5	R/P Head	99A-0004	38	Spacer	99A-0023
6	Erase Head	99A-0005	39	Gear, Play	99A-0024
16	Arm FF Solenoid	99A-0006	40	Gear, Idler	99A-0025
17	Arm Switch	99A-0007	41	Belt, Main	99A-0026
18	Arm Record	99A-0048	42	Belt, Sub	99A-0027
19	Guide Reference	99A-0009	44	Flywheel Assy	99A-0028
20	Arm Play Solenoid	99A-0049	45	Idler Assy	99A-0029
21	Guide, Cassette	99A-0011	46	Clutch Assy	99A-0030
22	Door, Frame	99A-0050	47	Reel Assy, Take up	99A-0031
23	Spring, Cassette	99A-0013	48	Damper Assy	99A-0032
24	Spring, Azimuth	99A-0014	49	Reel Assy, Supply	99A-0033
25	Spring, Door	99A-0015	53	Slide Switch	99A-0034
26	Spring, Pinch Roller	99A-0016	54	Solenoid	99A-0035
28	Spring, Azimuth	99A-0017	63	Washer, Lock	99A-0038
29	Spring, Arm Rock	99A-0018	64	Washer, Lock	99A-0039
31	Spring, Idler Play	99A-0019	70	Spring	99A-0041

SCHEMATIC DIAGRAM FOR CASSETTE PART

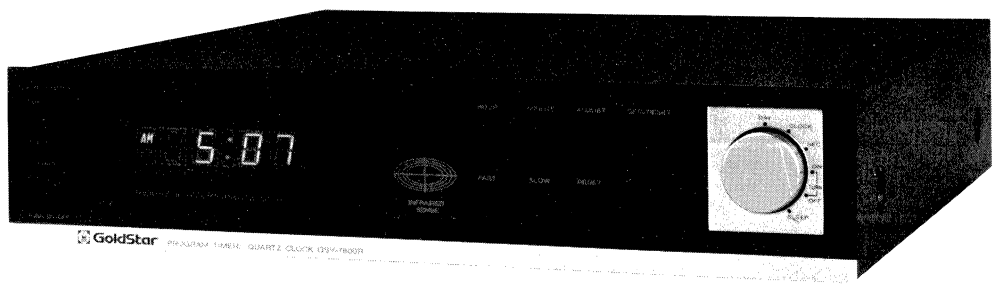


SCHEMATIC DIAGRAM FOR CONTROL PART



DIGITAL PROGRAM TIMER

MODEL GSY-7800R



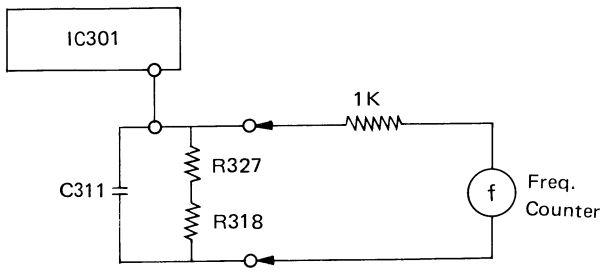
1. SPECIFICATIONS 45
2. ALIGNMENT INSTRUCTIONS 45
3. P.C. BOARD ASSEMBLY (COMPONENT SIDE) 46
4. EXPLODED VIEW 47
5. ELECTRICAL PARTS LIST 48
6. MECHANICAL PARTS LIST 49
7. SCHEMATIC DIAGRAM 50

SPECIFICATIONS

1. Battery working time (A stoppage of electronic power) . . . . . 3 hours (Minimum)
2. Tolerance of the time with working a rechageable battery (A stoppage of electronic power) . . . . . 1 hour (Marximum)
3. Semiconductors . . . . . 4 IC, 1 FET, 16TR, 32 Diode, 1 LED.

ALIGNMENT INSTRUCTIONS

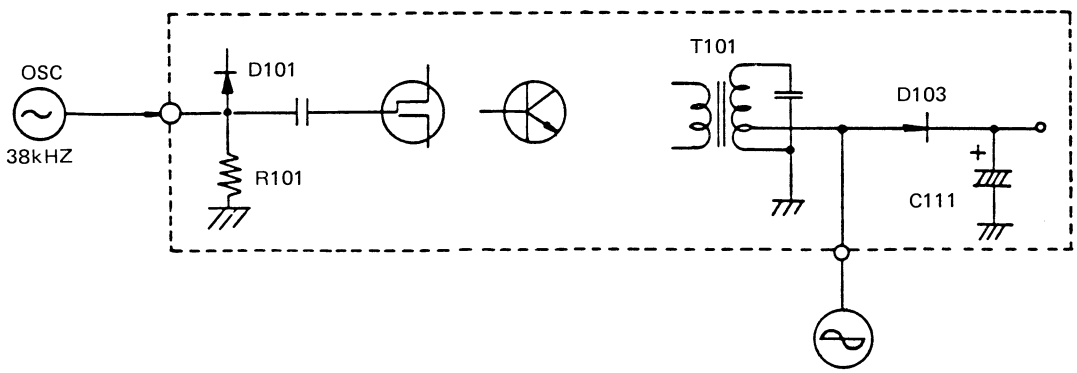
1. OSC. Frequency Adjustment



Adjust for	Adjustment	Remark
1.60kHZ	SR301	*

* This value is measured after sending an electric current for a specified time (about five minimutes) and then pulling out the power cord.

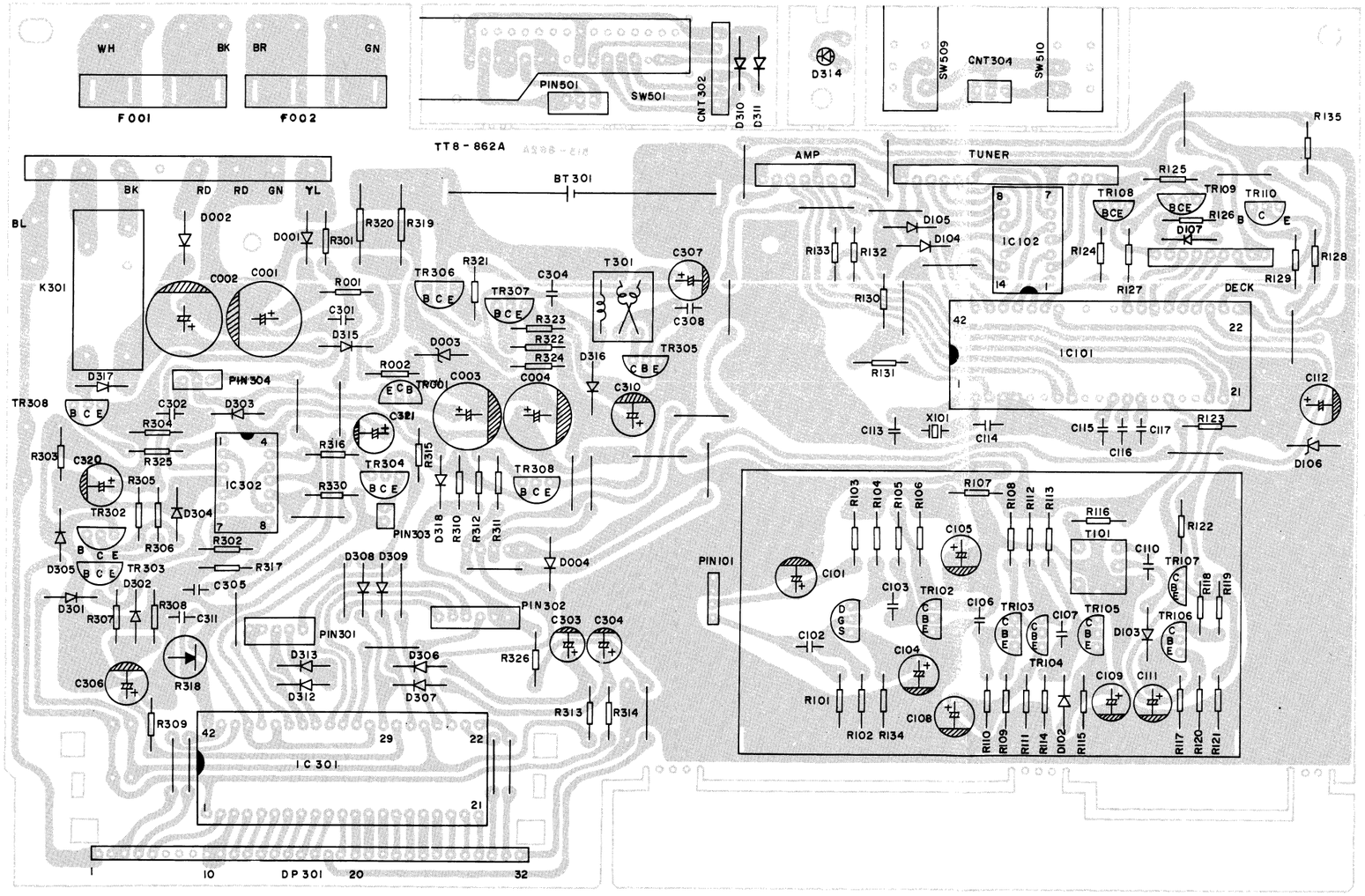
2. 38kHz Adjustment



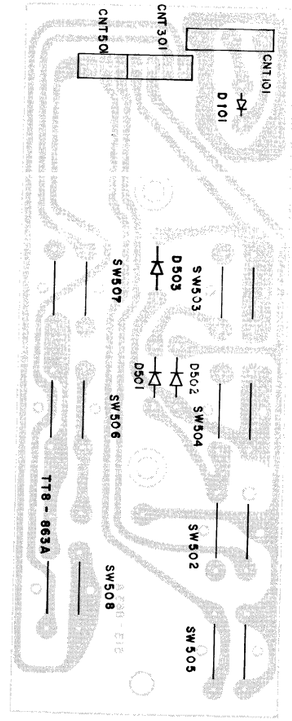
Input	Adjust for	Adjustment
38kHZ –30~–40dB	Maximum	T101

P.C. BOARD ASSEMBLY (COMPONENT SIDE)

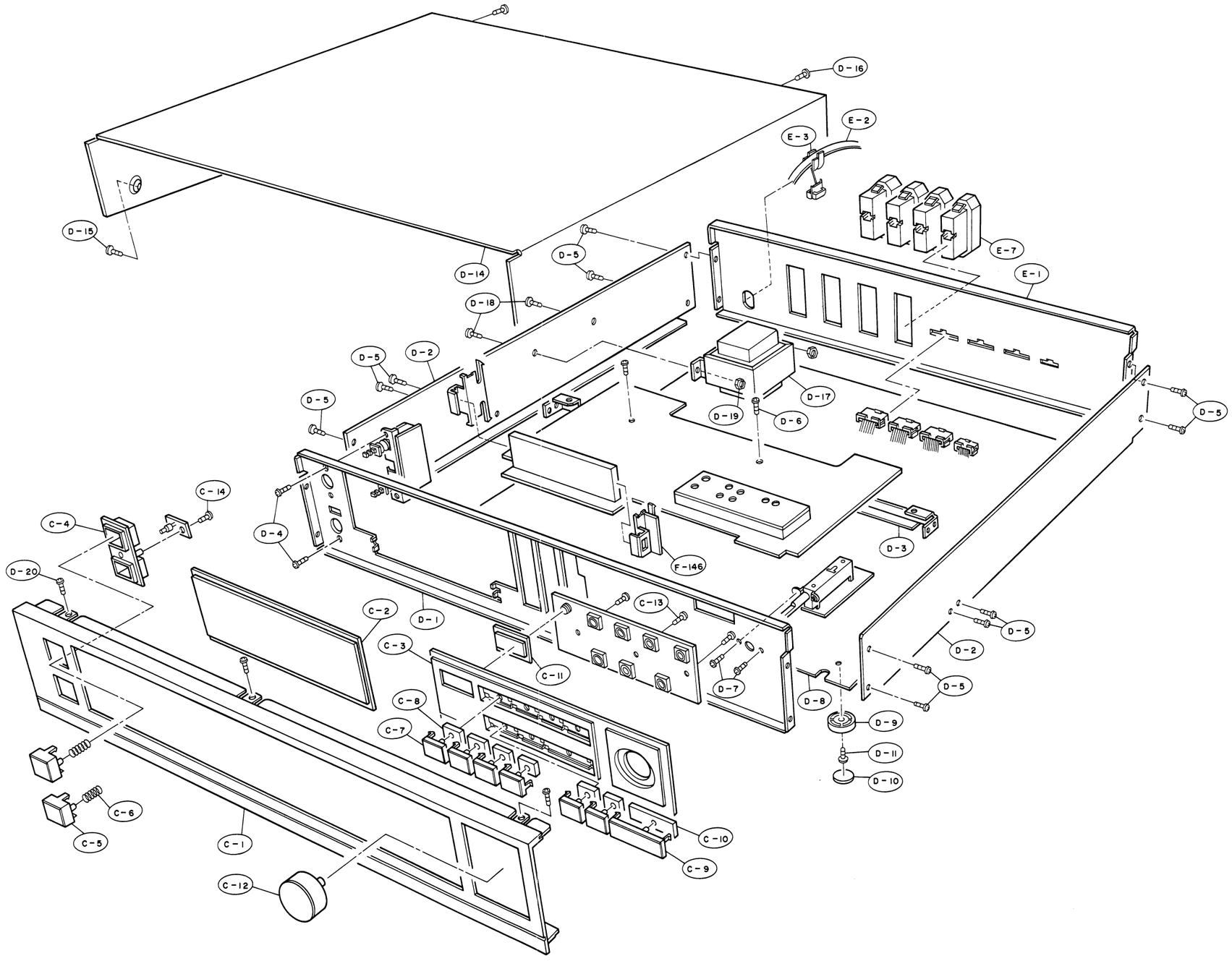
MAIN P.C. BOARD



MAIN P.C. BOARD



EXPLODED VIEW



ELECTRICAL PART LIST

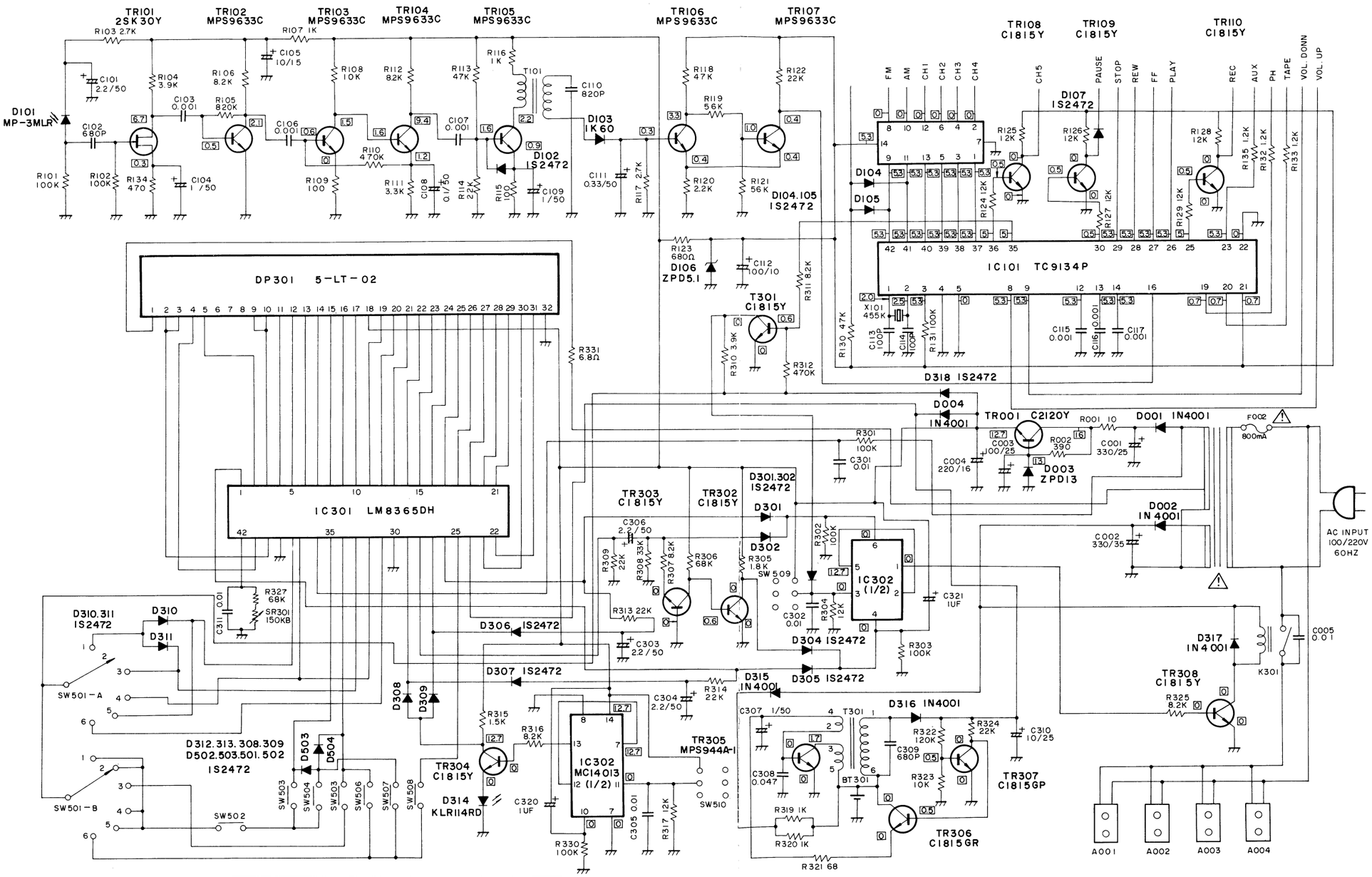
CAUTION: A ⚠ in the schematic diagram and the parts list designates components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 2 in this manual. Do not degrade the safety of the receiver through improper servicing.

Ref. No.	Description	Mfr's Part No.
INTEGRATED CIRCUITS		
IC101	TC9134P	668-090A
IC102	MC1406BCP	668-122A
IC301	LM8365DH	668-087A
IC302	MC14013BCP	668-057A
TRANGISTORS		
TR001	KTC2120-Y	665-830B
TR101	KTK30AY	667-010C
TR102~107	MPS9633C	662-026C
TR108~110	KTC1815-Y	665-812B
TR301~304	KTC1815-Y	665-812B
TR305	MPS9411A-I	662N033C
TR306~308	KTC1815-Y	665-812B
DIODES		
D001	1N4001	652-005A
D002	1N4001	652-005A
D003	ZPD-13	654-607B
D004	1N4001	652-005A
D101	Photo, H3MLR	654-619A
D103	1K60	651-001C
D104	1S2742 (T-77)	652T605B
D105	1S2472 (T-77)	652T605B
D106	ZPD-5.1	654-608C
D301~311	1S2472 (T-77)	652T605B
D314	LED, SLC-26UR	653-617A
D315~317	1N4001	652-005A
D318	1S2472 (T-77)	652T605B
D501~502	1S2472	652-605B
SWITCHES		
SW501	Rotary, SRZ-5046N-Function	551-620C
SW502~508	Tact, KHC10902	558-013A
SW509	Push-Manual	554-613N
SW510	Push-Timer Control	554-613N
MISCELLANEOUS		
DP301	Digitron, Fluorescent	659-013B
K301	Relay, VS24MB-DC-24V	557-010A
T101	Filter, Band-pass	639-601D
T301	Coil, Toroidal	646-006A
X101	Resonator, Ceramic	616-020A
R318	VR, Semi-Fixed 47kB	613-002G
C005	C, Ceramic 0.01μF 400V	CKI 03SQ7
⚠F002	Fuse, 250V 80mA	585-130B

MECHANICAL PARTS LIST

Ref. No.	Description	Mfr's Part No.	Ref. No.	Description	Mfr's Part No.
C-1	Panel, Front	258-701A	D-8	Plate, Bottom	256-701A
C-2	Window, Digitron	236-683C	D-9	Foot	265-024A
C-3	Escutcheon, Front	245-701A	D-10	Felt	472-610B
C-4	Guide, Power Knob	384-701A	D-11	Screw, TRQ2+3x8A	TRQ1836J
C-5	Knob, Power	273-716A	D-12	Screw, TRQ2+3x8A	TRQ1836J
C-6	Spring, Button	442-634R	D-13	Screw, TCQ+3x8 FZMY	TCQ1836J
C-7	Knob, Soft Touch	273-719A	D-14	Cabinet	213-701C
C-8	Cushion	447-701C	D-15	Screw, Special	353-072D
C-9	Knob, Band	273-720A	D-16	Screw, TRQ2+3x8A FBK	TRQ1836I
C-10	Cushion	447-701B	⚠D-17	Trans, Power	641-675C
C-11	Lens, Remocon	463-701A	D-18	Screw, MRC+3x8	MRC1836J
C-12	Knob, Select	273-721A	D-19	Nut, NH1-3	NHA1800J
C-13	Screw, TRQ2+3x8A	TRQ1836J	D-20	Screw, Tapping	TCQ1836J
C-14	Screw, TRQ2x6 FZMY	TRQ0930J	E-1	Chassis, Back	313-702B
D-1	Chassis, Front	313-704A	E-2	Cord, Power	681-003D
D-2	Frame, Side LYR	315-701A	E-3	Holder, Cord Heyco	324-384A
D-3	Frame, Cross	315-702A	E-7	Outlet, AC	565-004B
D-4	Screw	MRC1830J	F-1	PWB, Main	513-862A
D-5	Screw, TBQ+3x8 FZMY	TBQ1836J	F-146	Holder, Digitron	324-701A
D-6	Screw, TRQ2+3x8A	TRQ1836J	G-1	PWB, Switch	513-863A
D-7	Screw	MRC1830J			

SCHEMATIC DIAGRAM



S/W NO	DESCRIPTION	S/W NO	DESCRIPTION
SW501	FUNCTION 1: DAY 2: CLOCK 3: SLEEP 4: TURN ON 5: TURN 6: SLEEP	SW505	SECOND RESET
		SW506	SLEEP ADJUST SLOW
		SW507	SLEEP ADJUST FAST
SW502	TIME SET	SW508	SLEEP RESET
SW503	HOUR (MONTH) ADJUST	SW509	MANUAL ON/OFF (NON LOCKING)
SW504	MIN (DAY) ADJUST	SW510	TIMER CONTROL (NON LOCKING)

REMOTE TRANSMITTER

MODEL GSV-7800R

1. SPECIFICATIONS 52
2. ELECTRICAL PARTS LIST 52
3. MECHANICAL PARTS LIST 52
4. P.C. BOARD ASSEMBLY (COMPONENT SIDE) 53
5. EXPLODED VIEW 54
6. SCHEMATIC DIAGRAM 55

SPECIFICATIONS

1. Semiconductors . . . . . 1 ICs, 3TRs, 3 Diodes
2. Power . . . . . DC 4.5V (AA 1.5V x 3)
3. Weight 0.125Kg
4. Size . . . . . 64(W) x 24.5(H) x 144(D)m/m

ELECTRICAL PARTS LIST

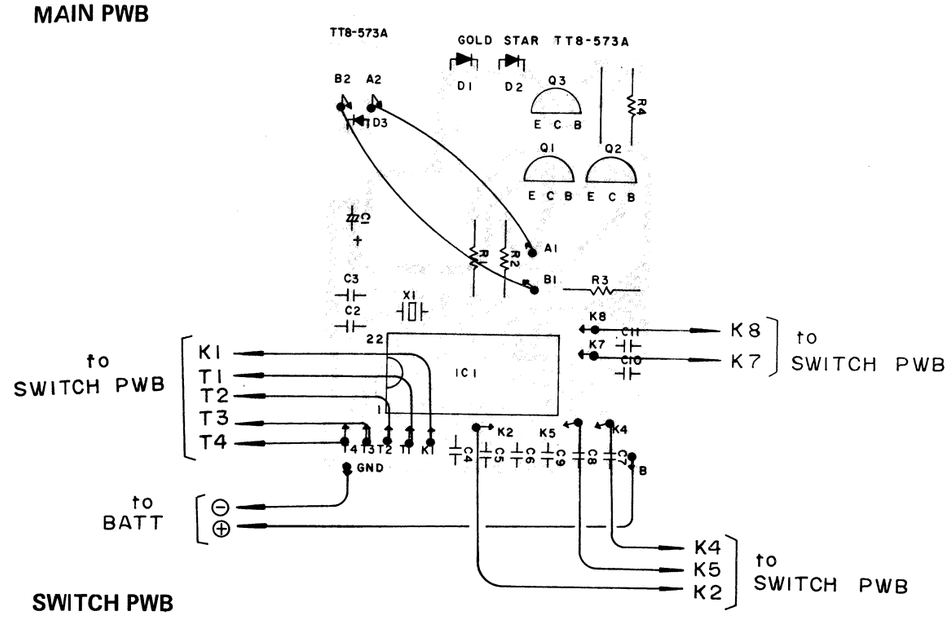
REF. NO.	DESCRIPTION	MFR'S PART NO.	REF. NO.	DESCRIPTION	MFR'S PART NO.
IC1	IC, TC9182P (REMOTE, TX)	668-089A	R4	R, CARBON FILM 1-J¼WM	RD010J09
Q3	TR, KTC 1959-Y	665-814B	R3	R, CARBON FILM 220-J¼WM	RD221J09
Q1, 2	TR, KTA 1015-Y	665-813B	R2	R, CARBON FILM 2-2K-J¼WM	RD222J09
D1, 2	DIODE EMITTING EL 2	654-620A	R1	R, CARBON FILM 10K-J¼WM	RD103J09
D3	LED, SLC-26UR RD	653-617A	C2, 3	C, CERAMIC CC 100PF-K SL 50V	CC101K01
X1	RESONALTOR CSB 455EBL	515-020B	C4, 5, 6, 7,	C, CERAMIC CC 220PF-K SL 50V	CC221K01
C1	C, ELECTROLYTIC 220μF-10V	CE227B31	8, 9, 10, 11		

MECHANICAL PARTS LIST

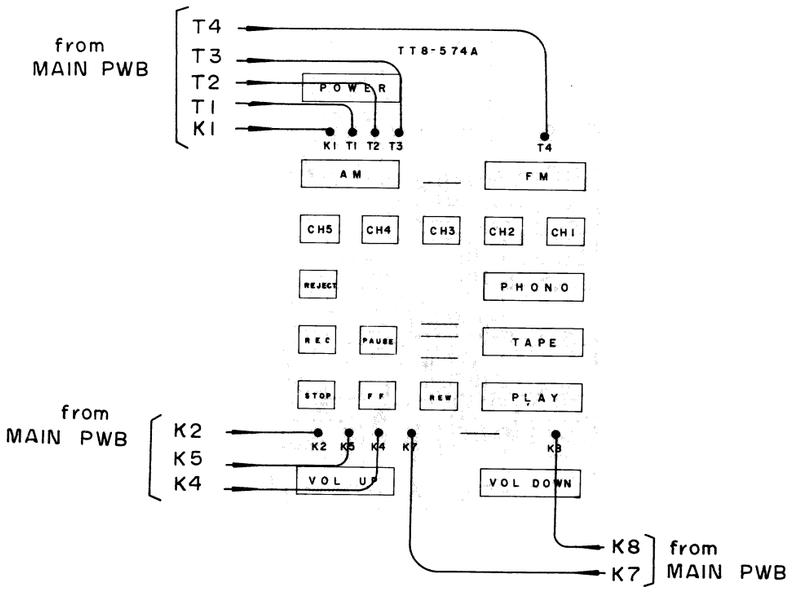
REF. NO.	DESCRIPTION	MFR'S PART NO.	REF. NO.	DESCRIPTION	MFR'S PART NO.
1	KNOB, PUSH-LARGE	273-661B	12	HOLDER, DRY CALL-A	324-460A
2	KNOB, PUSH-SMALL	273-660B	13	HOLDER, DRY CELL-S	324-463A
3	PWB, LED	511-573A	14	HOLDER, DRY CELL-B	324-461A
4	SCREW, SPECIAL	353-025G	15	HOLDER, DRY CELL-P	324-462A
5	S/W, RUBBER	558-016A	17	SCREW, MRC +2.5 x 4	MRC1522J
6	PWB, MAIN	513-573A	18	PWB, S/W	513-574B
7	WINDOW, TRANSMITTER	236-613A	19	CASE, DRYCELL	217-610B
8	CASE, DOWNSIDE	217-609B	20	CASE, UPSIDE	217-608A
9	LABEL, CAUTION	243-654C	21	NUT I 2.6	NHA1500J
10	SCREW, SPECIAL	353-025G	22	PLATE, DECORATION	256-845B
11	LABEL, NAME	243-653C		KNOB, PUSH LARGE (FOR POWER KNOB)	273-661C

P.C. BOARD ASSEMBLY (COMPONENT SIDE)

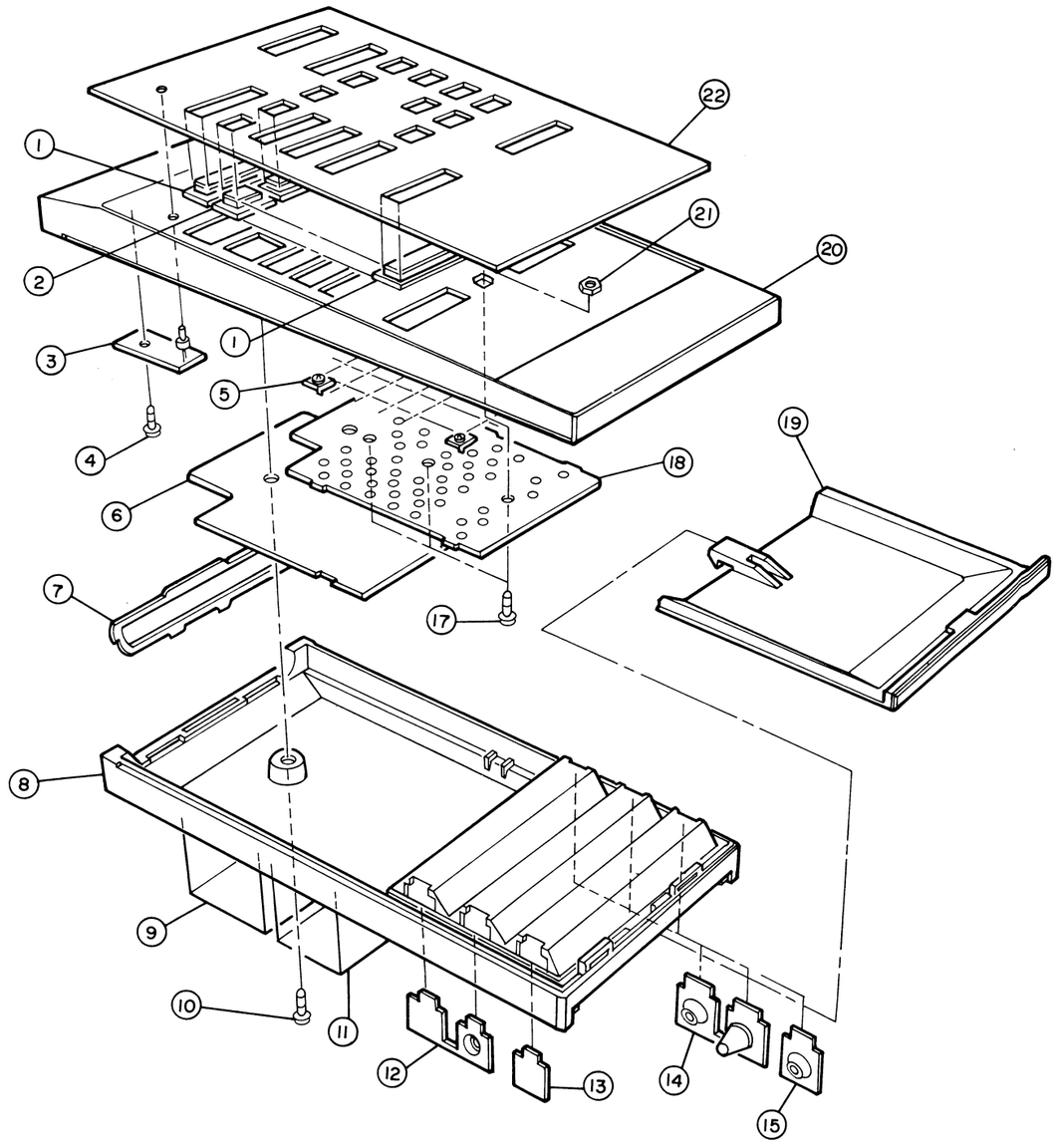
MAIN PWB



SWITCH PWB



EXPLODED VIEW



SCHEMATIC DIAGRAM